



**ANNUAL SCIENTIFIC CONGRESS
MALAYSIAN SOCIETY OF GASTROENTEROLOGY
AND HEPATOLOGY**

GUT 2017

11th – 13th August 2017

G HOTEL GURNEY, PENANG, MALAYSIA

SOUVENIR PROGRAMME & ABSTRACT BOOK

Entyvio®: Indicated for the treatment of adult patients with moderately to severely active ulcerative colitis (UC) or Crohn's disease (CD) who have had an inadequate response with, lost response to, or were intolerant to either conventional therapy or a TNF α antagonist¹



TREAT WITH PRECISION



INTRODUCING

 **Entyvio**[®]
vedolizumab

**The first and only
gut-selective
biologic that
offers lasting
remission¹**

Reference

1. Entyvio® Malaysia Package Insert

Abbreviated Prescribing Information

ENTYVIO® 300mg, powder for concentrate for solution for infusion **Please refer to full package insert before prescribing**

C: Vedolizumab **I:** Treatment of adult patients with moderately to severely active ulcerative colitis or Crohn's disease who have had an inadequate response with, lost response to, or were intolerant to either conventional therapy or a tumour necrosis factor-alpha (TNF α) antagonist **D:** **Ulcerative colitis** 300 mg infusion over 30 mins at 0, 2 and 6 weeks, and then every 8 weeks thereafter. Continued therapy should be carefully reconsidered if no evidence of therapeutic benefit by Week 14. Patients who experience a decrease in response may benefit from increased dosing frequency of 300 mg every 4 weeks. **Crohn's disease** 300 mg infusion over 30 mins at 0, 2 and 6 weeks, and then every 8 weeks thereafter. Patients who have not shown a response may benefit from a dose of 300 mg at Wk 10. Continue therapy every 8 weeks from Wk 14 in responding patients. Discontinue if no therapeutic benefit observed by Wk 14. Patients who experience a decrease in response may benefit from increased dosing frequency of 300 mg every 4 weeks. **Retreatment:** Consider dosing at every 4 weeks **CI:** Hypersensitivity to vedolizumab or any excipients. **WP:** Active infections such as tuberculosis (TB), sepsis, cytomegalovirus, listeriosis and opportunistic infections such as Progressive Multifocal Leukoencephalopathy (PML). **SP:** Entyvio has not been studied in children 0-17 yrs old, nor in patients with renal or hepatic impairment. No dosage adjustment required for elderly patients. **AR:** Nasopharyngitis, headache, arthralgia. Bronchitis, URTI, influenza, sinusitis, oropharyngeal pain, cough, nausea, rash, pruritus, back pain, fatigue, pain in extremities, pyrexia, infusion-related reactions. **Pregnancy & lactation:** Only if benefits to the mother outweigh the risk to unborn child. Unknown if Entyvio is present in human milk. Caution in nursing women. **P/P:** Vial 300mg x 1's

Further information available upon request

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MSGH Committee 2015 – 2017

PRESIDENT	Dr Akhtar Qureshi
PRESIDENT-ELECT	Dr Tan Soek Siam
IMMEDIATE PAST-PRESIDENT	Prof Dr Sanjiv Mahadeva
HON SECRETARY	Assoc Prof Dr Raja Affendi Raja Ali
HON TREASURER	Dr Tee Hoi Poh
COMMITTEE MEMBERS	Assoc Prof Dr Chan Wah Kheong Dr Hamizah Razlan Prof Dr Lee Yeong Yeh Datuk Dr Raman Muthukaruppan Dato' Dr Tan Huck Joo Prof Dato' Dr Goh Khean Lee Dr Ramesh Gurunathan

Organising Committee

CHAIRMAN	Dr Akhtar Qureshi
SCIENTIFIC COMMITTEE	Dato' Dr Tan Huck Joo (Chairman) Prof Dato' Dr Goh Khean Lee Assoc Prof Dr Chan Wah Kheong Prof Dr Lee Yeong Yeh Assoc Prof Dr Raja Affendi Raja Ali
COMMITTEE MEMBERS	Dr Hamizah Razlan Datuk Dr Raman Muthukaruppan Dr Ramesh Gurunathan Prof Dr Sanjiv Mahadeva Dr Tan Soek Siam Dr Tee Hoi Poh

Message from the President, Malaysian Society of Gastroenterology and Hepatology & Organising Chairman, GUT 2017



The Organising Committee of GUT 2017 would like to extend a warm welcome to all delegates, speakers and sponsors. This conference has been planned to keep the participants updated on the current trends in gastroenterology, hepatology and GI surgery. The scientific content has been fine tuned to meet the expectations of allied health professionals, trainees in medical and surgical postgraduate programmes, the General Physicians, the General Surgeons as well as the Specialist Gastroenterologists, Hepatologists and GI Surgeons.

The programme includes plenaries, symposium sessions, videos, case discussions and lunch and tea symposia. The entire meeting has been centered on both the basics as well as bringing you the very latest in the field of Gastroenterology and GI Surgery. We have an impressive list of local and world renowned speakers invited for the conference, with a focus on practical points to take home. We have had a great response from the trainees with their research and there will be both oral and poster presentations.

Over the years, this meeting has enabled many to meet up with old friends and colleagues as well as spending time with the family. Penang - Malaysia's 'Pearl of the Orient' - carries a natural beauty and cultural splendor and has a reputation as being the food paradise in the region.

Finally, we would like to thank all the invited speakers, delegates and sponsors for their commitment and time to ensure a successful meeting for all. I hope that you will find this conference rewarding both academically as well as socially and that you will have an enjoyable stay. I look forward to meeting you at the conference.



Dr Akhtar Qureshi

17th MSGH Oration Professor Dr Paul Moayyedi

Citation by Professor Dr Sanjiv Mahadeva



Population screening and H pylori eradication to reduce the incidence of gastric cancer

Professor Dr Paul Moayyedi obtained his medical degree from Bristol University in 1988 and trained in Gastroenterology at Leeds' General Infirmary, UK under the mentorship of Professor Dr Anthony Axon. He was awarded a PhD in 1999 and a Masters in Public Health in 2000, both from the University of Leeds. He served as Senior Lecturer and Clinical Consultant in Leeds, where much of his seminal research work on H.pylori population screening and gastric cancer had been initiated. A keen proponent of Evidence Based Medicine, Professor Moayyedi had also begun collaborating with the Cochrane Review group whilst in Leeds, with his contributions forming much of the evidence base for the treatments of H.pylori eradication and management strategies for upper GI diseases. In 2001, he moved to the University of Birmingham, UK, where he was appointed as Professor of Gastroenterology, Health Services Research. In 2004, Professor Moayyedi moved to McMaster University, Hamilton, Canada to become the first recipient of the Richard Hunt/AstraZeneca Chair of Gastroenterology in 2004. He became Director of the Division of Gastroenterology at McMaster in 2006.

Continuing on from the legacy of Professor Dr Richard Hunt at McMaster University, a legend in Gastroenterology, would have been a daunting task even for the "who's who in Gastroenterology". However, Professor Moayyedi's achievements speak for themselves - he has published over 340 peer-reviewed articles in top scientific journals including the Lancet, BMJ, Gastroenterology & Gut - to name a few. He has additionally authored 19 book chapters. With a h-index of 93, his work has been cited over 34,000 times according to Google Scholar. In 2010, he was appointed as Co-Editor-in-Chief of the American Journal of Gastroenterology, a position which he held until 2015. With his continued passion for evidence based medicine, he is currently the joint co-ordinating editor of the Upper Gastrointestinal and Pancreatic Diseases Cochrane Group. He has been involved in the development of several national and international guidelines including the American Gastroenterology Association and the England and Wales National Institute of Clinical Excellence dyspepsia and the American College of Gastroenterology IBS guidelines.

Professor Moayyedi's research interests include Barrett's surveillance, population H. pylori screening and treatment to prevent gastric cancer, colorectal cancer screening and recently in the gut microbiota. He is the PI of the IMAGINE network that has received over \$25 million funding from the Canadian Institute for Health Research and other partners. IMAGINE is the acronym for the Inflammation, Microbiome and Alimentation: Gastro-Intestinal and Neuropsychiatric Effects Network. It is one of five chronic disease research networks funded under Canada's Strategy for Patient-Oriented Research (SPOR). This network aims to evaluate how the diet and microbiome impact on IBD, IBS and associated psychological disorders.

It is an honour and privilege for the Malaysian Society of Gastroenterology & Hepatology to have Professor Dr Paul Moayyedi as our 17th MSGH Orator at GUT 2017.

14th Panir Chelvam Memorial Lecture Professor Dr Lawrence Ho Khek Yu

Citation by Professor Dr Lee Yeong Yeh



I am delighted with the chance to read a citation for Professor Dr Lawrence Ho whom I see as a great leader-mentor but also an accomplished researcher-innovator. Professor Lawrence Ho graduated with first class honours from the University of Sydney, and undertook his training in therapeutic gastrointestinal endoscopy and endoscopic ultrasound at the Brigham and Women's Hospital, and Hospital of the University of Pennsylvania, USA. He is an endoscopist par-excellence who has been invited regularly to perform live case demonstrations in numerous international workshops including ours. For his contribution to endoscopy training in India, he was conferred the Honorary International Life Membership of the Society of Gastrointestinal Endoscopy of India. He is also an effective educator and speaker, winning the Faculty Teaching Excellence Awards, National University of Singapore, in 2000 and 2003 respectively.

With his strong interpersonal skills and experience, he spearheads collaboration between researchers in Asia. He is current chair of the Asian EUS Group, an interest group dedicated to endoscopic ultrasound training and professional development of endosonographers in the Asian region. Under his leadership, the group has successfully organized many workshops and trained more than 1,000 trainees in Asia since 2012. The Asian Barrett's Consortium was formed by the NIH National Cancer Institute (NCI) in 2008 and he was the inaugural chair and lead researchers from seven Asian nations in performing collaborative research on Barrett's esophagus. He also chairs the Gut & Obesity in Asia ("GO Asia") Workgroup which aims to study relationship between obesity and the gastrointestinal system in the Asia-Pacific countries of which I have the privilege being a member.

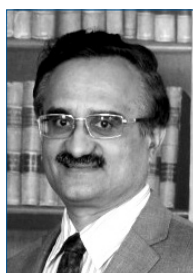
His regional standing as an academic leader is exemplified by invitation as an orator in the Francisco Roman Memorial Lecture (Joint Annual Convention of the Philippine Society of Gastroenterology and Philippine Society of Digestive Endoscopy, 2003) and Nihal Marcus Memorial Oration (Sri Lanka Gastroenterological Association, 2012). In 2010, he was conferred the Journal of Gastroenterology and Hepatology Foundation (JGHF) Emerging Leader lectureship at the Asia Pacific Digestive Week. He was President of Gastroenterological Society of Singapore in 2005-2006. He chairs the Gastroenterology Residency Advisory Committee, and sits in the Joint Commission on Specialist Training, Ministry of Health, Singapore. He has stepped down as Chair, University Medicine Cluster, and Head, Department of Medicine, National University Healthcare System, following six illustrious years of leadership where he was instrumental in enhancing the academic culture, and growing the next generation of academic leaders within the department.

He has published more than 200 peer-reviewed papers, more than 10 book chapters, co-edited 4 books, and held 2 US patents in medical technology products. Perhaps, innovation is what best defines him. As an innovator, he is best known as the co-inventor for the ground-breaking technology of the Master and Slave Transluminal Endoscopic Robot (MASTER), which was used to successfully perform the world's first robotic endoscopic submucosal dissection in human patients. Both the inventors co-founded a start-up company, Endomaster, and received the Singapore President's Technology Award in 2012, the highest honour bestowed on exceptional research scientists and engineers in Singapore. Working with the Department of Biomedical Engineering, NUS, the team also pioneered the world's one-of-a-kind In-Vivo Molecular Diagnostic System, which can make real time diagnosis of GI cancer simpler. This product has been spun off into his second start-up company, Endofotonics. More recently, SGInnovate is helping to spin off his third start-up company, Endopill, which is incubating the world's first and only intragastric balloon delivered by a capsule.

His achievement, passion and pursuit of need driven innovation in medicine are nothing short of phenomenal. This year, the MSGH Panir Chelvam Oration befits a man who has brought significant contributions to the field of endoscopy, and we are truly honoured to have Lawrence again to grace our Annual Scientific Meeting in 2017.

Malaysian Society of Gastroenterology & Hepatology Excellence Service Award 2017 - Datuk Dr Jayaram Menon

Citation by Datuk Dr Raman Mutukaruppan



Datuk Dr Jayaram Menon was born on 22nd November 1957 in Muar, Johor. He underwent his schooling in Johor. He graduated from the Medical Faculty of University of Malaya in 1981. He began his medical career as a house officer in General Hospital Melaka. He was posted to Hospital Tenom in Sabah as a Medical Officer in 1983. In 1984 he was appointed as Registrar of the Department of Medicine in Hospital Taiping under Tan Sri Dr Ismail Merican.

He obtained the MRCP in 1986 and was posted as Physician to the Department of Medicine in Hospital Sultanah Aminah, Johor Bahru, Johor under the late Dr Nur Afizah. He then served as Senior Registrar in the Department of Medicine, Hospital Kuala Lumpur in 1987 under the late Datuk D Sarvananthan. He began his Gastroenterology Training under Dato Dr (Mrs) S T Kew in Hospital Kuala Lumpur in 1990.

His second stint in Sabah began when he was posted to Queen Elizabeth Hospital, Kota Kinabalu in December 1990 as Head of the Department of Medicine and the Sabah State Physician. He proceeded to revamp the Department of Medicine by placing great emphasis on teaching and training. Many doctors throughout Malaysia came to this Department for training in both Medicine and Gastroenterology.

The Department of Medicine in QEH has thus far produced approximately 75 physicians and trained approximately 20 gastroenterologists and Gastroenterology Fellows. He has also been a MRCP PACES examiner since 2002.

In 1992 he underwent Gastroenterology training in Therapeutic Endoscopy at the Royal Liverpool University Hospital, U. K. under Dr. Tony Morris and Sir Ian Gilmore. In 1993 he returned to Queen Elizabeth Hospital where he proceeded to set up the Gastroenterology Unit and Endoscopy Unit.

He was awarded the Fellowship of the Royal College of Physicians (Edinburgh) in 1998 and the Fellowship of the Royal College of Physicians (London) in 2004. He was appointed as Chief of Gastroenterology Services and Chairman of the Gastroenterology Fellowship Training Programme of the Ministry of Health, Malaysia from 2002 – 2012. He was responsible for the creation of the current Gastroenterology Fellowship Programme. He dedicated himself to this programme and was instrumental in raising and maintaining the standards of this programme. He remains passionately dedicated to the Gastroenterology Fellowship Training programme.

In 2009 he pioneered the Post-Basic Gastrointestinal Intestinal Assistant (GIA) training programme based in Queen Elizabeth Hospital, Kota Kinabalu, Sabah. This Endoscopy Nursing programme, the first of its kind in South-East Asia, has produced close to 500 GIAs since its inception.

He is also the editor of the comprehensive Gastroenterology Services Operational Policy book of the Ministry of Health published this year.

He has held several positions in Gastroenterological organisations. He was President of the Malaysian Society of Gastroenterology and Hepatology (2000-2001) and Council Member of the Asian Pacific Association for Gastroenterology (2008-2010). He was a Member of the OMED Working Party on the American Association for Primary Care Endoscopy (AAPCE) Policy on Credentialing for GI Endoscopy (2009). He has been involved in the Organising Committees of several important GI Conferences. He was a member of the Organising Committee of the 2nd Wespac H. Pylori Congress in Kota Kinabalu, Sabah (1998), Organising Chairman of Gastro 2001, the MSGH Annual Scientific Meeting in 2001, Vice-President of the Organising committee of APDW 2010 and EUS-TAP workshops in QEH, amongst many others. He has been the Organising Chairman of the EndoQE International Endoscopy Workshop series of meetings in QEH since 2015.

He was also appointed as National Head of Internal Medicine from 2012 to 2014. He has been very active in Research and has been the Chairman of the Clinical Research Centre (CRC) of QEH since 2005. He has published several papers and presentations in Gastroenterology and Internal Medicine. His interests in Gastroenterology include upper gastrointestinal bleeding, Gastrointestinal T.B. and Therapeutic ERCP.

He is happily married to Geetha Menon and has three lovely children Karishma, Girish and Naveen.

His vision is to have a Malaysia where the highest standards of Gastroenterology are practised with equitable access to such care for one and all.

Last but not least, Datuk Dr Jayaram Menon is truly a great leader and an exemplary clinician who does not stop inspiring others. He is and will always be a role model for many.

Programme At A Glance

Date Time	11 th August 2017 (Friday)	12 th August 2017 (Saturday)		13 th August 2017 (Sunday)
0730 – 0820	Registration	Meet-the-Expert Breakfast Sessions (1 – 2)		Meet-the-Expert Breakfast Sessions (3 – 4)
0830 – 0950	SYMPOSIUM 1 Obesity	Case Discussion Obesity Management		SYMPOSIUM 4 FGID
0950 – 1030	LECTURE 1 17th MSGH Oration	LECTURE 3 14th Panir Chelvam Memorial Lecture		LECTURE 4
1030 – 1100	Tea	(1030 – 1050) Award Ceremony		Tea
		Tea (1050 – 1120)		Prize Giving Ceremony for Oral and Poster Presentations
1100 – 1230	Best Paper Award Presentations	(1120 – 1240) SYMPOSIUM 2 IBD		(1100 – 1220) SYMPOSIUM 5 Liver
1230 – 1330	Lunch Satellite Symposium [Abbvie]	(1240 – 1340) Lunch Satellite Symposium [Takeda]		(1220 – 1320) Lunch
1330 – 1430	Friday Prayers / Lunch	(1340 – 1430) Lunch	(1330 – 1430) Poster Round	
1430 – 1550	Case Discussion IBD	(1430 – 1550) SYMPOSIUM 3 Colorectal Cancer Screening		
1550 – 1630	LECTURE 2	(1550 – 1650) Tea Satellite Symposium [Johnson & Johnson]		
1630 – 1730	Tea Satellite Symposium [Reckitt Benckiser]	(1700 – 1900) MSGH Annual General Meeting		
1730 – 1930		(1900 – 2100) Dinner Symposium [Merck Sharp & Dohme]		
2000	(1930 – 2230) President's Dinner (By Invitation only)			

Daily Programme

11th August 2017, Friday

0730 – 0820	Registration	
0830 – 0950	SYMPOSIUM 1 – Obesity <i>Chairpersons: Ramesh Gurunathan, Alex Leow Hwong Ruey</i> The size of the problem <i>George Hopkins</i> Advances in endoscopic management of obesity <i>Lawrence Ho Khok Yu</i> Surgical options and outcomes for obesity among Asians <i>George Hopkins</i>	Ballroom
0950 – 1030	LECTURE 1 – 17th MSGH Oration <i>Chairperson: Akhtar Qureshi</i> Population screening and <i>H pylori</i> eradication to reduce the incidence of gastric cancer <i>Paul Moayyedi</i>	Ballroom
1030 – 1100	Tea	
1100 – 1230	Best Paper Award Presentations	
1230 – 1330	Lunch Satellite Symposium [Abbvie] <i>Chairperson: Goh Khean Lee</i> Impact of HCV beyond the liver <i>Martin Weltman</i>	Ballroom
1330 – 1430	Friday Prayers / Lunch	
1430 – 1550	Case Discussion <i>Chairpersons: Raja Affendi Raja Ali, Rafiz Abdul Rani</i> IBD <i>Panel: Gerhard Rogler, Simon Ng, Leung Wai Keung, Rupert Leong</i>	
1550 – 1630	LECTURE 2 [Supported by AstraZeneca / DKSH] <i>Chairpersons: Rosemi Salleh, Ngiu Chai Soon</i> Preventing GI Rebleeding in patients on antiplatelet therapy <i>Lawrence Ho Khok Yu</i>	Ballroom
1630 – 1730	Tea Satellite Symposium [Reckitt Benckiser] Challenges in the medical management of reflux symptoms: What's new? <i>Goh Khean Lee, Lee Yeong Yeh</i>	Ballroom
1930 – 2230	President's Dinner <i>(By Invitation only)</i>	Cheong Fatt Tze Mansion

Daily Programme

12th August 2017, Saturday

0730 – 0820	Meet-the-Expert Breakfast Sessions (Concurrent) 1. How to perform a quality colonoscopy [pg29] <i>Roger Barton</i> <i>Moderators: Ho Shiaw Hooi, April Camilla Roslani</i> 2. When to operate or when to start treatment for Crohn's? <i>Simon Ng [pg29] / Ooi Choon Jin [pg30]</i> <i>Moderator: Ida Nurmiha Hilmi</i>	<i>Salon III</i> <i>Salon IV</i>
0830 – 0950	Case Discussion <i>Chairperson: Chan Wah Kheong, Azrina bt Abu Bakar</i> Obesity Management <i>Panel: Lawrence Ho Khek Yu, George Hopkins, Ajay Duseja</i>	
0950 – 1030	LECTURE 3 – The 14th Panir Chelvam Memorial Lecture <i>Chairperson: Jayaram Menon</i> Latest progress in endoscopic robot <i>Lawrence Ho Khek Yu</i> <i>Citation by Lee Yeong Yeh</i>	<i>Ballroom</i>
1030 – 1050	MSGH Excellence Service Award	
1050 – 1120	Tea	
1120 – 1240	SYMPOSIUM 2 – IBD <i>Chairpersons: Raja Affendi Raja Ali, Ahmad Shukri Md Salleh</i> Slowing progression of IBD: Decisive therapy for early and long term remission <i>Gerhard Rogler</i> What we need to know about biosimilars for IBD in 2017? <i>Rupert Leong</i> Surgery for IBD: What gastroenterologist should know? [pg30] <i>Simon Ng</i>	<i>Ballroom</i>
1240 – 1340	Lunch Satellite Symposium [Takeda] Epidemiology of IBD in Malaysia [pg31] <i>Ida Normiha Hilmi</i> Entyvio: A new targeted approach for IBD treatment <i>Rupert Leong</i>	<i>Ballroom</i>
1330 – 1430	Poster Round	
1340 – 1430	Lunch	

Daily Programme

12th August 2017, Saturday

1430 – 1550	SYMPOSIUM 3 – Colorectal Cancer Screening <i>Chairpersons: Muhammad Radzi Abu Hassan, Zaidi Zakaria</i> Why screen for colorectal cancer [pg31] <i>Leung Wai Keung</i> Methods for colorectal cancer screening [pg32] <i>Roger Barton</i> Barriers to effective population screening [pg32] <i>Simon Ng</i>	Ballroom
1550 – 1650	Tea Satellite Symposium [Johnson & Johnson] <i>Chairperson: Ida Normiha Hilmi</i> More on anti-TNF for IBD <i>Leung Wai Keung</i>	Ballroom
1700 – 1900	MSGH Annual General Meeting	Ballroom
1900 – 2100	Dinner Symposium [Merck Sharp & Dohme]	Conference 3 & 4, Level 2
1830 – 1900	Registration and welcome	
1900 – 1910	Welcome	
1910 – 1925	HCV: From diagnosis to cure <i>Tan Soek Siam</i>	
1925 – 1955	Hepatitis C: What is the revolutionized treatment? <i>Teerha Piratvisuth</i>	
1955 – 2015	HCV clinical case studies: Treatment for different patient populations <i>Tee Hoi Poh</i>	
2015	Dinner	

Daily Programme

13th August 2017, Sunday

0730 – 0820	Meet-the-Expert Breakfast Sessions (Concurrent) 3. When to choose immunosuppressive and biologics for UC? [pg33] <i>Leung Wai Keung / Rupert Leong</i> <i>Moderators: Raja Affendi Raja Ali, Amry A Rahim</i> 4. When do I start/stop treatment for HBV? <i>Samir Shah</i> <i>Moderators: Nazri Mustaffa, Ismayatim</i>	<i>Salon III</i> <i>Salon IV</i>
0830 – 0950	SYMPOSIUM 4 – FGID <i>Chairpersons: Lee Yeong Yeh, Raman Mutukaruppan</i> What clinicians need to know about the diet and the gut? <i>Govind Makharia</i> IBS-C and functional constipation: Same or separate entity? <i>Reuben Wong</i> Celiac disease in the Asia Pacific - An emerging disease? <i>Govind Makharia</i>	<i>Ballroom</i>
0950 – 1030	LECTURE 4 [Supported by Abbvie] <i>Chairpersons: Tee Hoi Poh, Hoe Chee Hoong</i> Fecal microbiota transplant for the treatment of ulcerative colitis: Is it ready for prime time? [pg33] <i>Paul Moayyedi</i>	<i>Ballroom</i>
1030 – 1100	Tea Prize Giving Ceremony for Oral and Poster Presentations	<i>Ballroom</i>
1100 – 1220	SYMPOSIUM 5 – Liver <i>Chairpersons: Tan Soek Siam, Hamizah Razlan</i> Recent practice changing advances in the management of complications of cirrhosis <i>Samir Shah</i> Recent advances in pharmacological treatment of NASH <i>Ajay Duseja</i> Recent advances in the treatment of chronic hepatitis B <i>Lim Seng Gee</i>	
1220 – 1320	Lunch	

Moderators / Chairpersons

Ahmad Shukri Md Salleh

Hospital Sultanah Nurzahirah, Kuala Terengganu, Terengganu

Akhtar Qureshi

Sunway Medical Centre, Petaling Jaya, Selangor

Amry A Rahim

Universiti Sains Malaysia, Kubang Kerian, Kelantan

April Camilla Roslani

University Malaya Medical Centre, Kuala Lumpur

Azrina Abu Bakar

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KPJ Ampang Puteri Specialist Hospital, Ampang, Selangor

Ho Shiaw Hooi

University Malaya Medical Centre, Kuala Lumpur

Hoe Chee Hoong

Hospital Pulau Pinang, Pulau Pinang

Ismayatim Ahmad

Kedah Medical Centre, Alor Star, Kedah

Jayaram Menon

Hospital Queen Elizabeth, Kota Kinabalu, Sabah

Alex Leow Hwong Ruey

University Malaya Medical Centre, Kuala Lumpur

Nazri Mustaffa

Universiti Sains Malaysia, Kubang Kerian, Kelantan

Ngiu Chai Soon

University Malaya Medical Centre, Kuala Lumpur

Muhammad Radzi Abu Hassan

Hospital Sultanah Bahiyah, Alor Setar, Kedah

Rafiz Abdul Rani

Universiti Teknologi MARA, Sg Buloh, Selangor

Raja Affendi Raja Ali

Universiti Kebangsaan Malaysia Medical Centre Kuala Lumpur

Raman Mutukaruppan

Hospital Queen Elizabeth, Kota Kinabalu, Sabah

Ramesh Gurunathan

Sunway Medical Centre, Petaling Jaya, Selangor

Rosemi Salleh

Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan

Tan Soek Siam

Hospital Selayang, Selangor

Tee Hoi Poh

KPJ Pahang Specialist Hospital, Kuantan, Pahang

Zaidi Zakaria

Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan

Faculty Biodata



Roger Barton

Professor Roger Barton was previously the Dean of Medical Education at Newcastle University's Medical School. He is currently Provost and CEO of the University's campus in Johor. He was the Education Advisor to the UK National Endoscopy Training Programme. He was chair of both the UK Joint Advisory Group on Gastrointestinal Endoscopy, and the NHS Bowel Cancer Screening Accreditation Panel, and a member of the Federation of Royal Colleges Clinical Examining Board.



Ajay Duseja

Professor Ajay Duseja is a Professor at the Department of Hepatology, Postgraduate Institute of Medical Education and Research, Chandigarh, India. He is a Fellow of the National Academy of Medical Sciences, the AASLD, the ACG and the Society of GI Endoscopy of India. He is Honorary Treasurer for the Indian National Association for Study of the Liver (INASL) and National Convenor for the INASL Task Force on Nonalcoholic Fatty Liver Disease. He is Associate Editor for the Journal of Clinical and Experimental Hepatology and JGH Open. He has authored over 200 papers in reputed journals, and received various awards and honours.



Lawrence Ho Khek Yu

Professor Lawrence Ho Khek Yu is an accomplished academic leader in the National University Health System and an internationally recognised Key Opinion Leader in gastroenterology & GI endoscopy. He chairs the Asian EUS Group which dedicates itself to EUS training. He was the inaugural chair of Asian Barrett's Consortium (ABC) which performs collaborative research on Barrett's esophagus. He also chairs the Gut & Obesity in Asia ("Go Asia") Workgroup to study relationship between obesity and the gastrointestinal system.

A proven clinician innovator who co-founded two medical device start-ups, Endomaster and Endofototnics, he won the Singapore President's Technology Award in 2012.



George Hopkins

Dr George Hopkins is a Visiting Upper Gastrointestinal and Weight Loss Surgeon at the Royal Brisbane and Women's Hospital and Holy Spirit Northside Private Hospital. He is an Executive Member of the Obesity Surgery Society of Australia and New Zealand (OSSANZ). Most of Dr Hopkins' general surgical practice is now in the field of bariatric and revisional bariatric procedures. He is in private practice at the Chermside Medical Complex and runs the Surgical Weight Management Clinic at the Royal Brisbane and Women's Hospital.



Rupert Leong

Professor Rupert Leong is a Senior Gastroenterologist, Director of Endoscopy and Head of the IBD Service at Concord Hospital; Clinical Professor of Medicine at University of Sydney and UNSW; and founding director of IBD Sydney. He has an international reputation for the management of IBD and has over 150 scientific publications. He holds executive positions on the Research Committee of the Gastroenterological Society of Australia and the Journal of Gastroenterology and Hepatology, and is a member for the Agency for Clinical Innovation of NSW Health (expertise in IBD) and the Cancer Council of Australia Working Party (CPG revision for colorectal cancer).



Leung Wai Keung

Professor Leung Wai Keung is currently the Li Shu Fan Medical Foundation Professor in Gastroenterology at the Department of Medicine and the Assistant Dean (Research) of the Li Ka Shing Faculty of Medicine of the University of Hong Kong. Professor Leung has contributed more than 200 original articles and book chapters. He has a wide research interest in gastroenterology and endoscopy, and is editorial board member of several international journals. He was the Past President of the Hong Kong IBD Society and the Chair of the Scientific Committee of the Asia Pacific Digestive Week 2017.



Lim Seng Gee

Professor Lim Seng Gee is Director of Hepatology at the Division of Gastroenterology and Hepatology, NUHS, Singapore, and was previously Chief of Division. He is an editorial board member of several international journals. He is currently chairman of the Singapore Hepatology Conference and Science of HBV Cure Conference in partnership with EASL, and was the Chairman of the APASL Liver Week 2013 Congress. He was appointed in 2014 to the governing council of the IASL. His research includes clinical trials of new treatments for chronic hepatitis B and C, and translational research in viral hepatitis, with more than 207 peer-reviewed publications.



Govind K Makharia

Professor Govind Makharia is a Professor at the Department of Gastroenterology and Human Nutrition and an Adjunct Faculty at the Clinical Epidemiology Unit, All India Institute of Medical Sciences, New Delhi, India. He has trained 40 fellows in gastroenterology and 7 PhD students, published 160 articles in indexed journals and 30 book chapters, and edited a hand-book on celiac disease. He has co-chaired the World Gastroenterology Organization and Asia Pacific Association of Gastroenterology Working Party on Celiac Disease, and is a Board Member of the International Association for Studies on Celiac Disease. He has received numerous national and international awards.



Paul Moayyedi

Professor Paul Moayyedi qualified from Bristol University and obtained a PhD and Masters in Public Health from the University of Leeds. He moved to McMaster University in 2004 and became Director of the Division of Gastroenterology in 2006. He has published over 300 peer-reviewed articles and 19 book chapters (h-index 93, citations > 34,000). He is joint Coordinating Editor of the Upper GI and Pancreatic Disease Cochrane Review Group and a previous Editor-in-Chief of the AJG. He is PI of the IMAGINE network that has received over \$25 million funding from the Canadian Institute for Health Research and other partners.



Simon Ng

Professor Simon Ng is a Professor of the Division of Colorectal Surgery, The Chinese University of Hong Kong (CUHK). He is also a Management Committee Member of the Institute of Digestive Disease, CUHK, a Council Member of the Hong Kong IBD Society, and an International Fellow of the American Society of Colon and Rectal Surgeons. Professor Ng's main clinical and research interests are minimally invasive/robotic surgery and advanced endoscopic therapy for colorectal diseases, multimodality treatment for colorectal cancer, colorectal cancer screening, and surgical treatment for inflammatory bowel disease.



Ooi Choon Jin

Dr Ooi Choon Jin is Adjunct Associate Professor at the Duke-NUS Medical School, Consultant Gastroenterologist at Gleneagles Medical Centre and Visiting Consultant to the Inflammatory Bowel Disease Centre at Singapore General Hospital. He had previously served as Chairman of the Chapter of Gastroenterologists, Academy of Medicine, Singapore, and President of the Gastroenterological Society of Singapore. He is the Secretary-General of the Asian Pacific Association of Gastroenterology (APAGE) and the lead for APAGE Working Group on IBD. The IBD group has been pivotal in producing many IBD consensus to help guide clinicians in the diagnosis and management of IBD.



Gerhard Rogler

Professor Dr Gerhard Rogler serves as the Chairman of the Scientific Advisory Board of the University of Zurich and Head and Professor and consultant Gastroenterologist at the Division of Gastroenterology & Hepatology, Department of Medicine, Zurich University Hospital, Switzerland. Professor Rogler serves as Member of Scientific Advisory Board at Genetic Analysis AS and Immuron Limited. He is a leader in the field of inflammatory bowel disease. He is also a scientific officer for the European Crohn's Colitis Organization (ECCO) and member of the international organization for the study of IBD (IOIBD). He is also principal investigator of the Swiss Irritable Bowel Diseases cohort study and the author of more than 200 original peer-reviewed articles. Professor Rogler is a co-founder for PharmaBiome company which make microbiota therapy the new standard for the treatment of intestinal diseases. PharmaBiome develops a scalable, controllable and efficient alternative to the use of fecal material to make it the treatment of choice for intestinal infections. He has published more than 450 manuscripts referenced with Cumulative impact factor of 2900 and h-index of 61 and more than 15,000 citations.



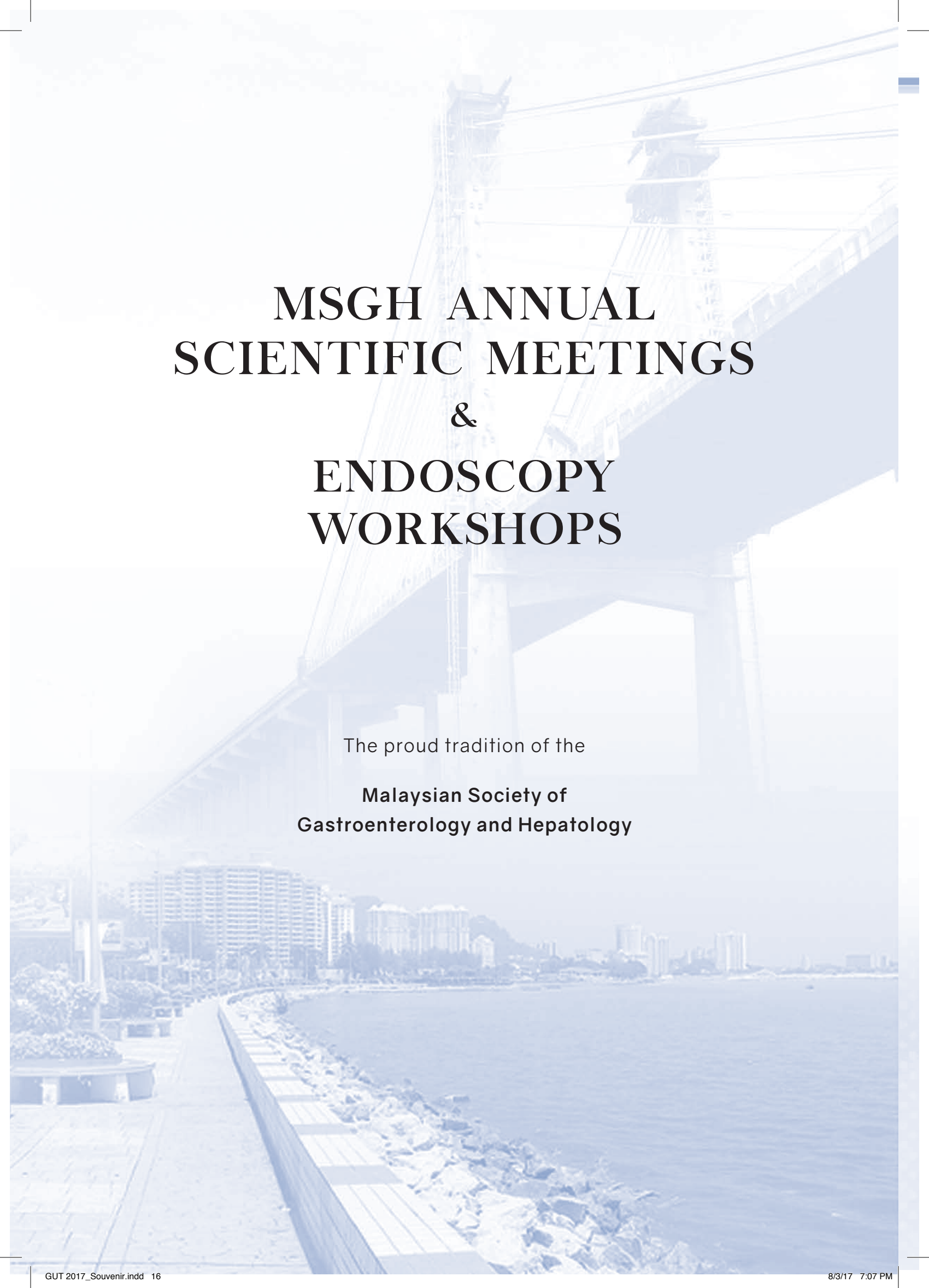
Samir Shah

Dr Samir Shah is the Head of the Department of Hepatology at the Institute of Liver Diseases, HPB Surgery and Transplant at the Global Hospital, Mumbai. He is a Council Member of the International Liaison Committee of the Asian Pacific Association for the Study of the Liver (APASL).



Reuben K Wong

Dr Reuben Wong is Adjunct Associate Professor at the National University of Singapore, and a Gastroenterologist with a subspecialty niche in Functional Gut Disorders and Neurogastroenterology. He holds Fellowships with the AGA, RCP and the Academy of Medicine, Singapore. He publishes and lectures widely in the fields of IBS, reflux, gut microbiota and colorectal cancer. He founded and continues to direct GIMotility, Asia's most established hands-on gut motility course. He has a passion for patient education and advocacy, and is the Chairman of the IBS Support Group of Singapore. He is also founding partner of gutCARE, Singapore's first Gastroenterology group practice.



MSGH ANNUAL SCIENTIFIC MEETINGS & ENDOSCOPY WORKSHOPS

The proud tradition of the
**Malaysian Society of
Gastroenterology and Hepatology**

Annual Therapeutic Endoscopy Workshops – “Endoscopy”

(Organised by the Malaysian Society of Gastroenterology and Hepatology in collaboration with the University of Malaya)

EVENT	FACULTY	DATE
Difficult ERCP- “The Master’s Approach”	Kees Huibregtse (Amsterdam, The Netherlands)	19 th August 1993
Endoscopic Ultrasonography	TL Tio (Washington, USA)	26 th July 1994
ERCP- “Basic Skills, Finer Points and New Techniques”	Kees Huibregtse (Amsterdam, The Netherlands)	25 th August 1994
Practical Points in Therapeutic Endoscopy	Nib Soehendra (Hamburg, Germany)	6 th December 1994
Therapeutic Endoscopy Workshop (In conjunction with Island Hospital, Penang, Malaysia)	Nib Soehendra (Hamburg, Germany) Kees Huibregtse (Amsterdam, Netherlands)	22 nd July 1997
Lasers in Gastroenterology	R Leicester (London, United Kingdom)	13 th August 1997
GI Endoscopy Nurses Workshop – “Setting the Standards for Practice”	Staff Members - Endoscopy Unit, University Hospital, Kuala Lumpur, Malaysia	30 th April - 2 nd May 1999
Endoscopy 2000	Sydney C S Chung (Hong Kong, China), Kenji Yasuda (Kyoto, Japan), Wang Yong-Guang (Beijing, China), Nageshwar Reddy (Hyderabad, India) <i>GIA Faculty:</i> Dorothy Wong (Hong Kong, China)	13 th - 15 th April 2000
Endoscopy 2001 – “A Master Class in Therapeutic Endoscopy”	Nib Soehendra (Hamburg, Germany) <i>GIA Faculty:</i> Adriana Cargin (Melbourne, Australia)	14 th - 15 th April 2001
Endoscopy 2002 – “Enhancing Basic Skills and Developing Expertise”	Christopher Williams (London, United Kingdom), Naotaka Fujita (Sendai, Japan), Joseph Leung (Sacramento, USA), Kees Huibregtse (Amsterdam, Netherlands) <i>GIA Faculty:</i> Diana Jones (Sydney, Australia)	5 th - 7 th April 2002
Endoscopy 2003 – “The Cutting Edge of GI Endoscopy”	Douglas Howell (Portland, USA), Haruhiro Inoue (Tokyo, Japan) Simon K Lo (Los Angeles, USA), Nageshwar Reddy (Hyderabad, India)	28 th February - 2 nd March 2003
Endoscopy 2004 – “Appreciating the Art of GI Endoscopy”	Firas Al Kawas (Washington, USA), Yoshihiro Sakai (Tokyo, Japan), Stefan Seewald (Hamburg, Germany), Joseph Sung (Hong Kong, China)	5 th - 7 th March 2005
Endoscopy 2005 – “Defining the Scope of Excellence”	Guido Costamagna (Rome, Italy), Shim Chan-Sup (Seoul, South Korea), K Yasuda (Kyoto, Japan), B Rembacken (Leeds, United Kingdom)	1 st - 3 rd April 2005
Endoscopy 2006 – “Frontiers of Therapeutic Endoscopy”	A T R Axon (Leeds, United Kingdom), James Lau (Hong Kong, China), Seo Dong-Wan (Seoul, Korea), Irving Waxman (Chicago, USA), Naohisa Yahagi (Tokyo, Japan)	14 th - 16 th April 2006
Endoscopy 2007 – “The Best Endoscopic Practices	Nageshwar Reddy (Hyderabad, India), Reza Shaker (Milwaukee, USA), Yusuke Saitoh (Sapporo, Japan), Stefan Seewald (Hamburg, Germany), Song Si-Young (Seoul, Korea), Mary Bong (Sydney, Australia)	13 th - 15 th April 2007
Endoscopy 2008 – “Seeing Better, Doing Better”	Peter B Cotton (Charleston, USA), G Ginsberg (Philadelphia, USA), H Isayama (Tokyo, Japan), S Ryozaawa, (Yamaguchi, Japan), J S Byeon (Seoul, Korea), Syed Shah, (West Yorkshire, United Kingdom)	29 th February, 1 st - 2 nd March 2008

Annual Therapeutic Endoscopy Workshops – “Endoscopy” (cont'd)

(Organised by the Malaysian Society of Gastroenterology and Hepatology in collaboration with the University of Malaya)

EVENT	FACULTY	DATE
Endoscopy 2009 – “Exploring the Limits of Endoscopy”	Jerome D Wayne (New York, USA), Kulwinder Dua (Milwaukee, USA), Amit Maydeo (Mumbai, India), H Kawamoto (Okayama, Japan), I Yasuda (Gifu, Japan), Lee Yong-Chan (Seoul, Korea), Y Sano (Kobe, Japan)	20 th - 22 nd March 2009
Endoscopy 2010 (organised with the APDW 2010) (In conjunction with Selayang Hospital, Kuala Lumpur, Malaysia)	Michael Bourke (Sydney, Australia), David Carr-Locke (New York, USA), Mitsuhiro Fujishiro (Tokyo, Japan), Marc Giovannini (Marseilles-France), Takuji Gotoda (Tokyo, Japan), James Lau (Hong Kong, China), Amit Maydeo (Mumbai, India), Ibrahim Mostafa (Cairo, Egypt), Horst Neuhaus (Düsseldorf, Germany), Nageshwar Reddy (Hyderabad, India), Rungsun Reknimitr (Bangkok, Thailand), Seo Dong-Wan (Seoul, Korea), Naohisa Yahagi (Tokyo, Japan), Hironori Yamamoto (Tokyo, Japan), Kenjiro Yasuda (Kyoto, Japan)	20 th - 21 st September 2010
Endoscopy 2011 – “What’s New and What’s Good for Our Patients”	Hisao Tajiri (Tokyo, Japan), Chiu Han-Mo (Taipei, Taiwan), Arthur Kaffes (Sydney, Australia), Ho Khek-Yu (Singapore), Hiroo Imazu (Tokyo, Japan), Takao Itoi (Tokyo, Japan), Lee Dong-Ki (Seoul, Korea), Takahisa Matsuda (Tokyo, Japan), Moon Jong-Ho (Seoul, Korea)	14 th - 17 th April 2011
Endoscopy 2012 – “Therapeutic Endoscopy in the Global World”	Robert Hawes (Miami, USA), Hiroshi Kashida (Kinki, Japan), Lee Sang-Hyup (Seoul, Korea), Claudio Navarette (Santiago, Chile), Paulo Sakai (Sao Paulo, Brazil), Rajvinder Singh (Adelaide, Australia), Wang Hsiu-Po (Taipei, Taiwan), Kenshi Yao (Fukuoka, Japan)	30 th - 31 st March, 1 st April 2012
Endoscopy 2013 – “Advancing the Practice of Endoscopy”	Phillip Chiu (Hong Kong, China), Lawrence Khek-Yu Ho (Singapore), Horst Neuhaus (Dusseldorf, Germany), Krish Rangunath (Nottingham, United Kingdom), Dong-Wan Seo (Seoul, Korea), Yun-Sheng Yang (Beijing, China), Ian Yusoff (Perth, Australia) <i>Special GIA Faculty:</i> Wang Ping (Shanghai, China)	12 th - 14 th April 2013
Endoscopy 2014 – “The Best Tips in Therapeutic Endoscopy”	Mitsuhiro Kida (Kanagawa, Japan), Gregory Ginsberg (Philadelphia, USA), Yutaka Saito (Tokyo, Japan), Jin Hong Kim (Suwon, Korea), James Y W Lau (Shatin, Hong Kong) <i>Special GIA Faculty:</i> Mary Bong (Sydney, Australia)	28 th - 30 th March 2014
Endoscopy 2015 – “Maintaining Quality in Endoscopy”	Christopher Khor (Singapore), Sundeep Lakhtakia (Hyderabad, India), Hiroyuki Maguchi (Sapporo, Japan), Amit Maydeo (Mumbai, India), Jong-Ho Moon (Bucheon, Korea), Roy Soetikno (Singapore and California, USA), Kenneth Wang (Rochester, Usa)	17 th - 19 th April 2015
Endoscopy 2016 – “Expanding the Horizons of Therapeutic Endoscopy”	Hyun-Jong Choi (Bucheon, Korea), Jacques Deviere (Brussels, Belgium), Manoel Galvao Netto (Sao Paulo, Brazil), Nageshwar Reddy (Hyderabad, India), Rungsun Reknimitr (Bangkok, Thailand), Brian Saunders (London, UK), Shyam Varadarajulu (Orlando, USA)	8 th - 10 th April 2016
Endoscopy 2017 – “Re-Defining Therapeutic Endoscopy”	Seiichiro Abe (Tokyo, Japan), Vinay Dhir (Mumbai, India), Haruhiro Inoue (Tokyo, Japan), Hiroyuki Isayama (Tokyo, Japan), Martin Keuchel (Hamburg, Germany)	7 th - 9 th April 2017

Distinguished Endoscopy Lecturers

NO	YEAR	ORATOR	TOPIC
1 st	1999	Kees Huibregtse (Amsterdam, The Netherlands)	The Development and Use of Biliary Endoprosthesis in ERCPs
2 nd	2001	Nib Soehendra (Hamburg, Germany)	A Master's Approach to Therapeutic Endoscopy
3 rd	2002	Christopher Williams (London, United Kingdom)	Practical Tips and Pitfalls in Colonoscopy
4 th	2003	Guido N J Tytgat (Amsterdam, The Netherlands)	The Unlimited Horizons of Therapeutic Endoscopy
5 th	2004	Yoshio Sakai (Tokyo, Japan)	Development and Application of Colonoscopy
6 th	2005	Guido Costamagna (Rome, Italy)	Endoscopic Management of Pancreatobiliary Diseases – State-of-the-art in 2005
7 th	2006	Anthony T R Axon (Leeds, United Kingdom)	The Impact of New Technology in GI Endoscopy
8 th	2007	D Nageshwar Reddy (Hyderabad, India)	Chronic Pancreatitis – Genes to Bedside
9 th	2008	Peter Cotton (Charleston, USA)	Therapeutic Endoscopy – Then, Now and Maybe
10 th	2009	Jerome Waye (New York, USA)	Exploring the Limits of Endoscopy
11 th	2010	David L Carr-Locke (New York, USA)	Enhancing the Eye – The Future of Endoscopy
12 th	2011	Hisao Tajiri (Tokyo, Japan)	Enhanced Imaging of the Gastrointestinal Tract
13 th	2012	Robert Hawes (Orlando, USA)	The Current and Future Role of Endoscopic Ultrasonography in GI Practice
14 th	2013	Horst Neuhaus Dusseldorf, Germany)	Viewing the Bile Duct – Recent Developments of Cholangioscopy
15 th	2014	Gregory Ginsberg (Philadelphia, USA)	Future Prospects for Gastrointestinal Endoscopy
16 th	2015	Kenneth Wang (Rochester, USA)	Diagnosis and Endoscopic Treatment of Barrett's Esophagus
17 th	2016	Jacques Deviere (Brussels, Belgium)	Metabolic Endoscopy: Future Horizons in Therapeutic Endoscopy
18 th	2017	Haruhiro Inoue (Tokyo, Japan)	Re-Defining Therapeutic Endoscopy – 20 years of Innovation

Annual Scientific Meetings – Overseas Invited Faculty

THE STOMACH '96 (Co-organised with the College of Surgeons)

3rd – 6th July 1996, Kuala Lumpur

Stephen G Bown	United Kingdom	Kang Jin-Yong	United Kingdom	Henry M Sue-Ling	United Kingdom
Sydney C S Chung	Hong Kong	Lam Shiu-Kum	Hong Kong	Nicholas J Talley	Australia
Teruyuki Hirota	Japan	Adrian Lee	Australia	Guido N J Tytgat	Netherlands
Richard H Hunt	Canada	Roy E Pounder	United Kingdom	Cornelis J H Van De Velde	Netherlands
David Johnston	United Kingdom	Robert H Riddell	Canada		

PENANG INTERNATIONAL TEACHING COURSE IN GASTROENTEROLOGY

(Co-organised with Penang Medical Practitioners' Society with the participation of the British Society of Gastroenterology)

23rd – 26th July 1997, Penang

Anthony Axon	United Kingdom	Dermot Kelleher	Ireland	J J Misiewicz	United Kingdom
John Dent	Australia	Fumio Konishi	Japan	James Neuberger	United Kingdom
R Hermon Dowling	United Kingdom	John Lambert	Australia	Thierry Poynard	France
Greg Holdstock	United Kingdom	Michael Larvin	United Kingdom	Jonathan Rhodes	United Kingdom
Kees Huibregtse	Netherlands	Christopher Liddle	Australia	Nib Soehendra	Germany
P W N Keeling	Ireland	Lim Seng-Gee	Singapore		

SECOND WESTERN PACIFIC HELICOBACTER CONGRESS

25th – 27th July 1998, Kota Kinabalu, Sabah

Masahiro Asaka	Japan	Richard Hunt	Canada	Pentti Sipponen	Finland
Douglas E Berg	USA	Lam Shiu-Kum	Hong Kong, China	Joseph J Y Sung	Hong Kong, China
Fock Kwong-Ming	Singapore	Adrian Lee	Australia	Rakesh Tandon	India
David Forman	United Kingdom	Peter Malferteiner	Germany	Guido N J Tytgat	Netherlands
David Y Graham	USA	Kenneth E L McColl	Scotland	Xiao Shu-Dong	China
Stuart L Hazell	Australia	Hazel M Mitchell	Australia		

GASTROENTEROLOGY 1999

23rd – 25th July 1999, Kuala Terengganu, Terengganu

Francis K L Chan	Hong Kong, China	Mohammed Al Karawi	Saudi Arabia	Quak Seng-Hock	Singapore
Sydney S C Chung	Hong Kong, China	Mohammad Sultan Khuroo	Saudi Arabia	Nicholas J Talley	Australia
John Dent	Australia	Peter Malferteiner	Germany	Neville D Yeomans	Australia
Rikiya Fujita	Japan	Colm O'Morain	Ireland		

GUT 2000

24th – 26th August 2000, Melaka

Anthony Axon	United Kingdom	Lim Seng-Gee	Singapore	Francis Seow-Choen	Singapore
Geoffrey C Farrell	Australia	Anthony I Morris	United Kingdom	Jose D Sollano	Philippines
Vay Liang W Go	USA	David Mutimer	United Kingdom	Guido N J Tytgat	Netherlands
Humphrey J F Hodgson	United Kingdom	Ng Han-Seong	Singapore	Michael Wolfe	USA
Peter Katelaris	Australia	Thierry Poynard	France		

GASTRO 2001 (With the participation of the American Gastroenterological Association)

5th – 8th April 2001, Kota Kinabalu, Sabah

Aziz Rani	Indonesia	Y K Joshi	India	Mahesh P Sharma	India
Chung Owyang	USA	Joseph Kolars	USA	Gurkirpal Singh	USA
Sydney S C Chung	Hong Kong, China	Koo Wen-Hsin	Singapore	Jose D Sollano	Philippines
Andrew Clouston	Australia	Edward Krawitt	USA	J L Sweeney	Australia
John Dent	Australia	Pinit Kullavanijaya	Thailand	Rakesh Tandon	India
Fock Kwong-Ming	Singapore	Lam Shiu-Kum	Hong Kong, China	Benjamin C Y Wong	Hong Kong, China
Robert N Gibson	Australia	Peter Malferteiner	Germany	Xiao Shu-Dong	PR China
Richard Hunt	Canada	James M Scheiman	USA		

GUT 2002

27th – 30th June 2002, Penang

Chow Wan-Cheng	Singapore	Peter Katelaris	Australia	Ng Han-Seong	Singapore
Anuchit Chutaputti	Thailand	James Y W Lau	Hong Kong, China	C S Pitchumoni	USA
David Forman	United Kingdom	Tore Lind	Sweden	Herbert J Tilg	Austria
Lawrence Ho Khek-Yu	Singapore	Barry James Marshall	Australia	John Wong	Hong Kong, China

GUT 2003

28th – 31st August 2003, Kuching, Sarawak

Francis K L Chan	Hong Kong, China	Humphrey J O'Connor	Ireland	Eamonn M M Quigley	Ireland
Chang Mei-Hwei	Taiwan	Colm O'Morain	Ireland	Jose D Sollano Jr	Philippines
W G E Cooksley	Australia	Teerha Piratvisuth	Thailand	Joseph Sung	Hong Kong, China
Gwee Kok-Ann	Singapore	Roy Pounder	United Kingdom	Yeoh Khay-Guan	Singapore

GUT 2004

24th – 27th June 2004, Penang

Sydney C S Chung	Hong Kong, China	Huang Jia-Qing	China	Mario Rizzetto	Italy
Geoffrey C Farrell	Australia	Lam Shiu-Kum	Hong Kong, China	Russell W Strong	Australia
Ronnie Fass	USA	Peter W R Lee	United Kingdom	Benjamin C Y Wong	Hong Kong, China
David Fleischer	USA	Masao Omata	Japan		
Fock Kwong-Ming	Singapore	Teerha Piratvisuth	Thailand		

GUT 2005

23rd – 25th June 2005, Pulau Langkawi, Kedah

Raymond Chan Tsz-Tong	Hong Kong, China	Gerald Johannes Holtmann	Australia	Graeme Young	Australia
Meinhard Classen	Germany	Peter Malferteiner	Germany	Yuen Man-Fung	Hong Kong, China
Anthony Goh	Singapore	Kenneth McColl	Ireland		

GUT 2006

20th – 23rd June 2006, Kuala Lumpur

Peter Gibson	Australia	Anthony Morris	United Kingdom	Francis Seow-Choen	Singapore
Lawrence Ho Khek-Yu	Singapore	Nageshwar Reddy	India	Nimish Vakil	USA
Gerald Johannes Holtmann	Germany	Ng Han-Seong	Singapore	John Wong	Hong Kong, China
Lim Seng-Gee	Singapore	Ooi Choon-Jin	Singapore		
Irvin Modlin	USA	Fred Poordad	USA		

GUT 2007

29th August – 1st September 2007, Kota Kinabalu, Sabah

Ronnie Fass	USA	Norman Marcon	USA	Nib Soehendra	Germany
Marc Giovannini	France	Amit Maydeo	India	Daniel Wong	Singapore
Robert Hawes	USA	Charlie Millson	England	Hironori Yamamoto	Japan
Richard Hunt	Canada	G V Rao	India	Yeoh Khay-Guan	Singapore
Finlay Macrae	Australia	Marcelo Silva	Argentina		

GUT 2008

21st – 24th August 2008, Kuala Lumpur

Anuchit Chutaputti	Thailand	Lawrence Ho Khek-Yu	Singapore	Govind K Makharia	India
Peter Bytzer	Sweden	Pali Hungin	United Kingdom	Prateek Sharma	USA
Henry Chan Lik-Yuen	Hong Kong, China	Rupert Leong	Australia	Rajvinder Singh	Australia
Sydney C S Chung	Hong Kong, China	Davide Lomanto	Singapore	Mitchell Shiffman	USA
David Y Graham	USA	Lui Hock-Foong	Singapore	Sundeep Punamiya	Singapore

GUT 2009

14th to 16th August 2009, Pulau Langkawi, Kedah

Geoffrey Farrell	Australia	Lim Seng-Gee	Singapore	Joseph Sung Jao-Yiu	Hong Kong, China
Fock Kwong-Ming	Singapore	Lo Chung-Mau	Hong Kong, China	Daniel Wong Wai-Yan	United Kingdom
Peter R Galle	Germany	Irvin Modlin	USA	Yeoh Khay-Guan	Singapore
Christopher Khor	Singapore	Fabio Pace	Italy		
George K K Lau	Hong Kong, China	Rungsun Rerknimitr	Thailand		

APDW 2010 (Incorporating GUT 2010 & Endoscopy 2010)

19th to 22nd September 2010, Kuala Lumpur Convention Centre, Kuala Lumpur

Subrat Kumar Acharya	India	Hiroyuki Isayama	Japan	Eamonn Quigley	Ireland
Deepak Amarapurkar	India	Takao Itoi	Japan	Shanmugarajah Rajendra	Australia
Ang Tiing-Leong	Singapore	Derek Jewell	United Kingdom	Gurudu Venkat Rao	India
John Atherton	United Kingdom	Jia Ji-Dong	China	Nageshwar Reddy	India
Anthony Axon	United Kingdom	Utom Kachintorn	Thailand	Rungsun Rerknimitr	Thailand
Deepak Bhasin	India	Hiroshi Kashida	Japan	Jean Francois Rey	France
Henry J Binder	USA	Peter Katelaris	Australia	Shomei Ryozaawa	Japan
Mary Bong	Australia	Takashi Kawai	Japan	Yutaka Saito	Japan
Michael Bourke	Australia	Christopher Khor Jen-Lock	Singapore	Shiv Sarin	India
Marco Bruno	The Netherlands	Nayoung Kim	Korea	Wolff Schmiegel	Germany
David Carr-Locke	USA	Seigo Kitano	Japan	Juergen Schoelmerich	Germany
Ashok Chacko	India	Sriram Krishnan	USA	See Teik-Choon	United Kingdom
Henry Chan Lik-Yuen	Hong Kong, China	Shin-ei Kudo	Japan	Seo Dong-Wan	Korea
Francis Chan Ka-Leung	Hong Kong, China	Ashish Kumar	India	Francis Seow-Choen	Singapore
Adarsh Chaudhary	India	George Lau	Hong Kong, China	Prateek Sharma	USA
Yogesh Chawla	India	James Lau Yun-Wong	Hong Kong, China	Shim Chan-Sup	Korea
Yang Chen	USA	Rupert Leong	Australia	Hiroshi Shimada	Japan
Chen Min-Hu	China	Leung Wai-Keung	Hong Kong, China	Jose Sollano	Philippines
Philip Chiu	Hong Kong, China	Lim Seng-Gee	Singapore	Eduard Stange	Germany
Pierce Chow	Singapore	Lin Jaw-Town	Taiwan	Russell W Strong	Australia
Chow Wan-Cheng	Singapore	Liu Chen-Hua	Taiwan	Kentaro Sugano	Japan
Sylvia Crutchet	Chile	Lo Chung-Mau	Hong Kong, China	Kazuki Sumiyama	Japan
J Enrique Dominguez-Muñoz	Spain	Lo Gin-Ho	Taiwan	Joseph Sung	Hong Kong, China
Greg Dore	Australia	Anna Lok Suk-Fong	USA	Hisao Tajiri	Japan
Christophe DuPont	France	Kaushal Madan	India	Nicholas Joseph Talley	Australia
Anders Ekbohm	Sweden	Varocha Mahachai	Thailand	Narci Teoh	Australia
Geoffrey Charles Farrell	Australia	Govind Makharia	India	Judith Tighe-Foster	Australia
Ronnie Fass	USA	Peter Malferteiner	Germany	Guido Tytgat	The Netherlands
Fock Kwong-Ming	Singapore	Takahisa Matsuda	Japan	Noriya Uedo	Japan
Ruggiero Francavilla	Italy	Amit Mayo	India	James Versalovic	USA
Mitsuhiro Fujishiro	Japan	Kenneth E L McColl	United Kingdom	Wang Hsiu-Po	Taiwan
Peter Galle	Germany	Paul Moayyedi	Canada	William E Whitehead	USA
Edward Gane	New Zealand	Irvin Modlin	USA	Simon Wong Kin-Hung	Hong Kong, China
Uday Ghoshal	India	Moon Jong-Ho	Korea	Benjamin Wong Chun-Yu	Hong Kong, China
Peter Gibson	Australia	Ibrahim Mostafa	Egypt	Justin Wu	Hong Kong, China
Marc Giovannini	France	Horst Neuhaus	Germany	Naohisa Yahagi	Japan
Takuji Gotoda	Japan	Masao Omata	Japan	Hironori Yamamoto	Japan
Gwee Kok-Ann	Singapore	Evan Ong	Philippines	Ichiro Yasuda	Japan
Robert Heading	United Kingdom	Ooi Choon-Jin	Singapore	Kenjiro Yasuda	Japan
Janaki Hewavisenthi	Sri Lanka	Park Hyo-Jin	Korea	Neville Yeomans	Australia
Lawrence Ho Khek-Yu	Singapore	Teerha Piratvisuth	Thailand	Graeme Young	Australia
Bing Hu	China	Ronnie Poon	Hong Kong, China	Yu Ming-Lung	Taiwan
Pali Hungin	United Kingdom	Sundeepp Punnamiya	Singapore	Yuen Man-Fung	Hong Kong, China
Richard Hunt	Canada	Qian Jia-Ming	China	Qi Zhu	China

GUT 2011

27th to 29th May 2011, Kuala Lumpur

Ling Khoon-Lin	Singapore	Chan See-Ching	Hong Kong, China	See Teik-Choon	United Kingdom
Luigi Bolondi	Italy	Colm O'Morain	Ireland	Kao Jia-Hong	Taiwan
Lui Hock-Foong	Singapore	Philip Chiu Wai-Yan	Hong Kong, China	Yeoh Khay-Guan	Singapore
Hiroto Miwa	Japan	Ooi Choon-Jin	Singapore	George K K Lau	Hong Kong, China
Sybille Mazurek	Germany	Kang Jin-Yong	United Kingdom		

GUT 2012

29th June to 1st July 2012, Melaka

Henry Chan Lik-Yuen	Hong Kong, China	James Y W Lau	Hong Kong, China	Morris Sherman	Canada
Emad El-Omar	USA	Francesco Marotta	Italy	Shaw Somers	United Kingdom
Han Kwang-Hyub	Korea	Ravi Mohanka	India	Jose Decena Sollano	Philippines
Lawrence Ho Khek-Yu	Singapore	D Nageshwar Reddy	India	Jan Tack	Belgium
Richard Kozarek	USA	Jinsil Seong	Japan	Wong Ka-Tak	Hong Kong, China

GUT 2013

23rd to 25th August 2013, Penang

Alan Barkun	Canada	David Kwon	Korea	Takeshi Sano	Japan
Francis Chan	Hong Kong, China	Kenneth EL McColl	United Kingdom	Francis Seow-Choen	Singapore
Chien Rong-Nan	Taiwan	Ng Siew-Chien	Hong Kong, China	Vijay Shah	USA
Pierce Chow	Singapore	David Peura	USA	Justin Wu Che-yuen	Hong Kong, China
Michael A Kamm	Australia	Bjorn Rembacken	United Kingdom		

GUT 2014 & ECCO EDUCATIONAL WORKSHOP

22nd to 24th August 2014, Kuala Lumpur

Adarsh Chaudhary	India	Nancy Leung	United Kingdom	Stephan Vavricka	Switzerland
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GUT 2015

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MSGH Orators

NO	YEAR	ORATOR	TOPIC
1 st	2001	P Kandasami Kuala Lumpur, Malaysia	Gastroenterology in Malaysia
2 nd	2002	Barry J Marshall Perth, Australia	<i>Helicobacter pylori</i> : How it all came about and where do we go from here?
3 rd	2003	Guido J Tytgat Amsterdam, The Netherlands	Future Developments in Gastroenterology
4 th	2004	Lam Shiu-Kum Hong Kong, China	Pathogenesis of Gastric Cancer – A Unifying Concept
5 th	2005	Meinhard Classen Munich, Germany	GI Cancer – The Global Burden in the New Millennium
6 th	2006	John Wong Hong Kong, China	Multi-Disciplinary Treatment in Esophageal Cancer: The Price of Failure
7 th	2007	Norman Marcon Toronto, Canada	New Optical Technologies for Early Detection of Dysplasia
8 th	2008	Sydney Chung Hong Kong, China	Ulcer Bleeding: What you really want to know
9 th	2009	Geoffrey Farrell Canberra, Australia	Battling the Bulge in Asia – Implications for Gastroenterologists
10 th	2010	Nicholas Joseph Talley Newcastle, Australia	New Insights into the Aetiopathogenesis of Functional Dyspepsia
11 th	2011	Colm O'Morain Dublin, Ireland	Colorectal Cancer – The Emerging Cancer in the 21 st Century
12 th	2012	Richard Kozarek Seattle, USA	Minimally Invasive/Interventional Gastroenterology: Where Have We Been? Where Are We Going?
13 th	2013	Goh Khean Lee Kuala Lumpur, Malaysia	Asia at the Crossroads: Changing Patterns and Emerging Diseases
14 th	2014	Patrick Kamath Minnesota, USA	Insights into Optimal Management of End Stage Liver Disease - A Continuing Challenge
15 th	2015	Kentaro Sugano Tokyo, Japan	<i>Helicobacter pylori</i> and Gastric Cancer - A Balanced View
16 th	2016	Kenneth McColl Glasgow, Scotland	<i>H. pylori</i> and The Pathophysiology of Gastroduodenal and Oesophageal Disease

Panir Chelvam Memorial Lecturers

NO	YEAR	LECTURER	TOPIC
1 st	2004	Mohd Ismail Merican Kuala Lumpur, Malaysia	Treatment of Chronic Viral Hepatitis in the Asia-Pacific Region: Realities and Practical Solutions
2 nd	2005	Peter Malfertheiner Magdeburg, Germany	Diagnosis and Management of Pancreatic Cancer
3 rd	2006	Nageshwar Reddy Hyderabad, India	GI Endoscopy in India – Development and Lessons for the Future
4 th	2007	Richard Hunt Hamilton, Canada	Evidence-based Medicine in the Real World
5 th	2008	Pali Hungin Durham, United Kingdom	Plausible Solutions for Impossible Problems
6 th	2009	Fock Kwong-Ming Singapore	Lower GI Bleeding – Epidemiology and Management
7 th	2010	Joseph J Y Sung Hong Kong, China	The Future Role of the Gastroenterologist in Digestive Oncology
8 th	2011	Kang Jin-Yong London, United Kingdom	East-West Differences in Upper GI Diseases
9 th	2012	Emad El-Omar Aberdeen, United Kingdom	Role of Chronic Inflammation in GI Cancer
10 th	2013	Michael Kamm Melbourne, Australia	Achieving the Balance between Drug Therapy and Surgery in Inflammatory Bowel Disease
11 th	2014	John A Windsor Auckland, New Zealand	Progress with Acute Pancreatitis – Millstones and Milestones
12 th	2015	Yogesh Chawla Jabalpur, India	Non Cirrhotic Portal Hypertension
13 th	2016	John Monson Florida, USA	Colorectal Surgery - Less Invasive, More Effective?

Conference Information

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GUT 2017

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All presentations will be deleted from the conference computers after the presentations are over.

Posters

Posters will be displayed at the Ballroom Foyer from 0800 hrs on 11th August 2017 till 1200 hrs on 13th August 2017.

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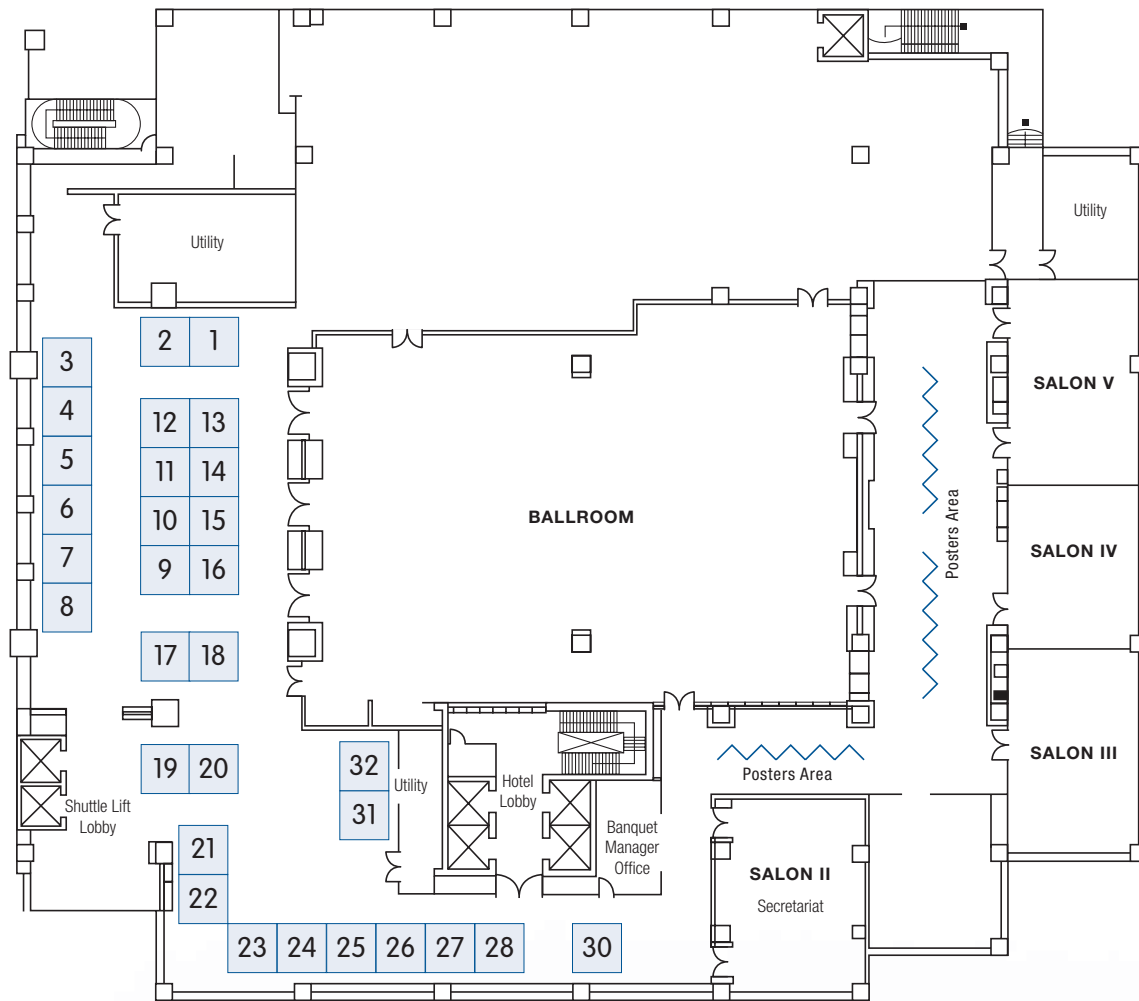
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HOW TO PERFORM QUALITY COLONOSCOPY

Roger Barton

Newcastle University Medicine Malaysia, Educity@Iskandar, Johor, Malaysia

Learning colonoscopy has changed significantly over the past 15 years. Numerous advances including passive and digital models & simulators, and magnetic scope guides have been accompanied by far more valuable developments in teaching of skills, and of assessment of competence. This progress has been strengthened by a more patient-centred and holistic approach.

Ensuring that the procedure is being performed on the right person is the first step, and validation is a useful process. Full and informed consent, with alternative options being presented to the patient, is mandatory. Attention to detail in bowel preparation will give the best chance of a thorough examination. Development of local policies and agreements with colleagues and colorectal surgeons around marking and management of any advanced lesions can be helpful. The equipment should be briefly checked prior to insertion to ensure a trouble-free procedure.

During the procedure, keeping to a few rules and processes can make large differences in both comfort, insertion completeness, and detection of lesions. Torque steering, maintaining a luminal view, using minimal insufflation and repeatedly deflating, shortening and straightening, and routine position changes at the key points in the descending colon, and at the flexures all contribute to ease and quality of the examination. Documenting completeness by identifying and recording caecal landmarks is valuable, especially for quality improvement and medico-legal aspects! Meticulous inspection throughout withdrawal, appropriate therapy choice, and retrieval of specimens is crucial. Retroflexion in the rectum and bowel deflation further contribute to quality.

Post-procedure, a full report stating site of any lesions, and comments about any difficulties, followed by a clear plan with appropriate follow-up, should be produced.

Significant gains in the overall level of quality in colonoscopy have been made by open comparison of metrics, by training and assessment of performance, and by training the trainers.

WHEN TO OPERATE FOR CROHN'S DISEASE?

Simon Ng

Division of Colorectal Surgery, Department of Surgery, The Chinese University of Hong Kong, Hong Kong

Despite advances in medical therapy and the increasing use of biologics, surgery is still required in up to 75% of patients with Crohn's disease (CD) during their lifetime, dependent on disease location. Unfortunately, surgery is not curative for CD, and complication rates and recurrence rates after surgery are relatively high. On the other hand, there is clear evidence that surgery can effectively palliate patients' symptoms and improve their quality of life, and that delay in surgery in some patients may result in more advanced disease and hence more postoperative complications. A joint evaluation by the gastroenterologists and surgeons is therefore mandatory to determine the indication and optimal timing of surgery. Surgery in CD is governed by the location and extent of the disease, the response to medical therapy, and the presence and absence of complications. For patients who are unlikely to respond to medical therapy (e.g. fibrostenotic disease with prestenotic dilatation), early referral to surgeons should be made. Preservation of bowel length during surgery by limiting the resection to macroscopic disease and the use of strictureplasty is essential to avoid short bowel syndrome in patients with CD.

WHEN TO START TREATMENT FOR CROHN'S DISEASE

Ooi Choon Jin

Gleneagles Medical Centre and Duke-NUS Medical School

Treatment in Crohn's disease is aimed at achieving remission and maintaining that status. Treatment of acute flares include the use of steroids, immunomodulators and biologics. While steroids are useful in achieving remission in a flare, it has no role in maintenance therapy. Immunomodulators which include azathioprine, 6-mercaptopurine and methotrexate along with biologics have a role in maintenance of remission. In subsets of patients with poor prognostic factors, an accelerated step up or top down approach may be considered. Otherwise, the norm in the region is to persist with a step up approach. Mesalazine have limited role in treatment of Crohn's disease.

The goal of therapy is to induce mucosal healing. Mucosal healing has been associated with better quality of life, less hospitalization and reduced need for surgery. In all instances, conjoint management with a surgeon is essential. There are many occasions surgery is required especially in complicated perianal fistulas and significant strictures and dysplastic or malignant lesions.

No active Crohn's disease should be left without medical intervention as that will lead to progression of disease. Inflammatory subtype of disease, if left untreated, will lead to penetrating and stricturing disease, all of which harbour poor outcome and decreased quality of life.

Symposium 2 – IBD

SURGERY FOR IBD: WHAT GASTROENTEROLOGISTS SHOULD KNOW?

Simon Ng

Division of Colorectal Surgery, Department of Surgery, The Chinese University of Hong Kong, Hong Kong

WHO SHOULD RECEIVE SURGERY?

Inflammatory bowel disease (IBD) is a condition primarily treated with medical therapy. The major indications for surgery are either a lack of response to medical treatment or when complications arise. Surgery for ulcerative colitis (UC) is typically due to a lack of response to medical therapy; however, complications such as major bleeding, perforations, or toxic megacolon may require surgical intervention. In Crohn's disease (CD), complications are more likely to drive surgical intervention and these include strictures and fistulae.

WHEN TO DO IT?

When determining whether a patient requires surgery and the optimal timing of surgery, it is important to take a multidisciplinary approach. The multidisciplinary team, which consists of gastroenterologists, surgeons, radiologists, and pathologists, should jointly discuss the patient's clinical condition along with the risks and benefits associated with each treatment option. The risk of infection is always a concern regarding surgery in IBD, especially in patients who have been on long-term immunosuppressants and biologics. When dealing with complex or emergency cases, a senior surgical opinion should be sought at an earlier stage of management before the patient deteriorates, and the decision to operate is best taken by the gastroenterologist and the surgeon in conjunction with the patient. Avoiding late surgical intervention (i.e., after the patient has already experienced major complications) is critical to improving long-term outcomes.

HOW TO DO IT?

The type of surgery performed in IBD depends on whether the patient is suffering from UC or CD. As UC is localized to the colon, the most common surgical procedure performed is proctocolectomy. In emergency cases, a total colectomy may first be performed followed by elective surgery to remove the rectum. In CD patients, the main aim is to avoid surgery altogether owing to the fact that it can affect the entire alimentary system and therefore cannot be cured via resection. When surgery is necessary, the aim should be to preserve as much of the bowel as possible, as repeated surgery is highly likely. Bowel-sparing procedures, such as strictureplasty, should be performed when possible to avoid or minimize resection.

EPIDEMIOLOGY OF IBD IN MALAYSIA

Ida Normiha Hilmi

Division of Gastroenterology and Hepatology, Department of Medicine, Faculty of Medicine,
University of Malaya, Kuala Lumpur, Malaysia

As in other Asian countries, inflammatory bowel disease (IBD) is relatively uncommon in Malaysia, with crude incidence and prevalence rates of 0.68 and 9.24 per 100,000 persons respectively. This is in sharp contrast to Caucasian populations, where the incidence rates can be as high as 25-30 per 100,000 persons. Based on these figures, there are only about 2000-3000 cases in Malaysia. The highest incidence and prevalence rates among the Indian ethnic group. Although the overall incidence remains low, the mean incidence of IBD has increased steadily from 0.07 to 0.69 per 100 000 person-years over the past two decades, with Crohn's disease (CD) increasing at a higher rate compared to ulcerative colitis (UC). The UC:CD ratio was 8:1 from 1990 to 2000 but this gap has decreased to approximately 4:1 from 2000 to 2010.

The clinical phenotypes of UC and CD in Malaysia are not dissimilar to other populations. For UC, extensive disease is seen in up to 40%, although there appears to be lower rates of colectomy and colorectal carcinoma (CRC). For CD, the commonest location is ileocolonic and consistent with Western data, is also associated with a high risk of stricturing and penetrating complications, with surgical rates up to 50%. Therefore, we can conclude that the emergence of IBD in Malaysia will become a significant health burden in the future and the time has come to develop cohesive strategies to diagnose and manage the disease.

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Symposium 3 – Colorectal Cancer Screening

WHY SCREEN FOR COLORECTAL CANCER?

Leung Wai Keung

Department of Medicine, University of Hong Kong, Hong Kong

Colorectal cancer (CRC) is the third most common cancer in men and the second in women in the world. Although there is a wide geographic variation in CRC incidences with higher incidences in more developed regions, the CRC incidences are also rising rapidly in many Asian countries. In Hong Kong, colorectal cancer has already surpassed lung cancer as the most prevalent cancer. Unlike many other cancers, CRC has a very well recognized precursor lesion, namely adenoma, which makes early detection and removal possible. High quality data from previous trials have confirmed that screening of CRC could reduce the incidence and mortality related to CRC. The simple fecal occult blood test (FOBT) has been shown to reduce cancer mortality by 15-30%. As yet, data on the more sensitive and specific fecal immunochemical test (FIT) are lacking but it is anticipated to be superior to FOBT. Flexible sigmoidoscopy has also been shown in randomized controlled studies to reduce CRC mortality by about 47% but this reduction is limited to distal cancer. On other hand, colonoscopy has been found to reduce CRC mortality by about 68%. Notably, the cancer mortality reduction is also higher for distal than proximal CRC. Despite all the benefits of CRC screening, there are also drawbacks such as potential complications related to screening and the cost of screening. The highest complications and cost are expected with the use of screening colonoscopy. However, cost-effectiveness study still showed that among various screening strategies, colonoscopy is associated with the highest life years gained, highest number of CRC prevented and the lowest total costs. There are overwhelming evidences to support that CRC screening can reduce the incidence and mortality of CRC. Whilst CRC is rapidly emerging in Asian countries, the adoption of a national CRC screening program is urgently needed.

METHODS FOR COLORECTAL CANCER SCREENING

Roger Barton

Newcastle University Medicine Malaysia, Educity@Iskandar, Johor, Malaysia

Screening is the process of detecting asymptomatic or pre-cancerous lesions in average risk individuals without previous personal or family history and is distinct from surveillance – intermittent assessment of patients with known predisposition.

Screening for colorectal cancer has the potential to be highly effective, perhaps moreso than for breast or other common neoplasms. Screening may be opportunistic or programmatic. There are a number of potential methods for screening, used singly or in combination – these will be compared and contrasted.

The key issues and limitations of each will be discussed in the context of patient preference, efficacy, risk, and cost. The main strategies revolve around occult blood detection, endoscopic or radiological detection of lesions, and serum-based identification. Approaches can differ, and can be of multiple options, sequential testing, or based on a risk-stratified model.

Endoscopic methods are a cornerstone in most models of colorectal cancer screening, and the key problems and issues will be discussed in greater depth. Patient acceptance, bowel preparation, procedural comfort, risks, and quality of procedure are important aspects. Colonoscopic skills need to be high, both in detection and therapy. Right sided and flat lesions are the most difficult to find by any methodology.

The experiences and lessons from the UK National Health Service Bowel Cancer Screening Programme will be outlined.

BARRIERS TO EFFECTIVE POPULATION SCREENING

Simon Ng

Division of Colorectal Surgery, Department of Surgery, The Chinese University of Hong Kong, Hong Kong

Colorectal cancer (CRC) has emerged as one of the most common cancers in Asia. Population-based screening with fecal occult blood test can result in a remarkable reduction of CRC incidence and mortality. Despite this, the screening participation rates of at-risk populations in Western and Asian countries remain low. Only a limited number of studies have investigated the factors that play a major role in compliance and noncompliance with CRC screening. According to the Asia Pacific Consensus Recommendations on CRC screening, more research on barriers to CRC screening should be conducted in Asian countries. A study from Hong Kong employed the Health Belief Model to study the knowledge, behavioral, and psychologic obstacles to CRC screening tests. Knowledge of CRC symptoms and risk factors, recommendation by a doctor, and the availability of health insurance are positively associated with uptake of screening tests. On the other hand, health, psychologic, and access barriers, and perceived negative personal and family consequences of CRC are negatively associated with uptake of screening test. The Asia Pacific Working Group on CRC had undertaken a similar study (with 8000 subjects) to compare health-seeking behavior and obstacles to CRC screening tests in different Asian countries. Physician recommendation and knowledge of screening tests were found to be significant predictors of CRC test uptake. In countries with low-test participation (<10% participation: e.g. Malaysia), lower perceived access barriers and higher perceived severity were independent predictors of participation. Respondents from low-participation countries had the least knowledge of symptoms, risk factors, and tests and reported the lowest physician recommendation rates. In countries with medium participation rates (10-30% participation: e.g. Hong Kong), having health insurance, lower perceived access barrier, media exposure, and known network member with CRC were additional positive correlates. It was concluded that considerable deficiencies existed in CRC knowledge, attitudes, and physician recommendations, leading to poor uptake of CRC tests in the Asia-Pacific region. Before implementing population-based screening programs, improving awareness of CRC and promoting the physicians' role are necessary to increase the screening participation rates.

WHEN TO CHOOSE IMMUNOSUPPRESSIVE AND BIOLOGICS FOR UC?

Leung Wai Keung

Department of Medicine, University of Hong Kong, Hong Kong

While 5-aminosalicylate acid (5-ASA) is the first-line treatment for mild to moderate ulcerative colitis (UC), a proportion of patients with more severe disease will require more intensive treatment to achieve remission. For patients who are steroid-dependent or steroid-refractory, other therapeutic option has to be considered. Despite the role of immunosuppressive agents on disease maintenance, it is not recommended for inducing remission in active UC. Biologics have been shown to be very effective in both remission induction as well as maintenance. However, the prohibitive cost may limit its use, particularly in some Asian countries.

We will discuss the use of immunosuppressive agent and biologics in a 25-year-old lady who presented with moderately severe ulcerative colitis.

Lecture 4

FECAL MICROBIOTA TRANSPLANT FOR THE TREATMENT OF ULCERATIVE COLITIS: IS IT READY FOR PRIME TIME?

Paul Moayyedi

Department of Medicine, McMaster University, Canada

The main focus of therapy for both ulcerative colitis (UC) and Crohn's disease (CD) is to suppress the immune system. Until recently there has been little focus on altering the environment that might be driving the aberrant immune response in the GI tract. The microbiome is a likely driver of the gut immune response and if the microbiome that is hypothetically causing the immune response seen in UC or CD could be changed this may be a useful therapeutic option in inflammatory bowel disease. Fecal microbiota therapy (FMT) has been successful in treating clostridium difficile colitis and small case series have given conflicting results in UC.

There have now been four randomized trials evaluating FMT in over 277 active UC patients. Overall FMT seems to be more effective than placebo although the effect is much more modest than that seen with clostridium difficile with about 25% achieving remission at 6-8 weeks. The number needed to treat was 5 (95% CI = 4 to 10). This seems disappointing but is comparable to remission rates seen with biologic therapies at this time point. However, the numbers of patients studied is small and we are uncertain of how to administer FMT. There is a suggestion from one trial that there may be a donor effect and FMT may be more effective early in the course of UC. There are many questions on how FMT should be administered and for how long. Case series suggest FMT may also be effective in CD and randomized trials are ongoing.

asFMT shows promise as a treatment to induce remission in active UC based on the efficacy and safety observed so far. There remain however many unanswered questions that require further research before FMT can be considered for use in clinical practice.

BEST PAPER AWARD PRESENTATIONS

- 1 EIGHT-WEEK MODIFIED ALTERNATE-DAY CALORIE RESTRICTION IS AN EFFECTIVE DIETARY STRATEGY FOR NON-ALCOHOLIC FATTY LIVER DISEASE WITH MODERATE STEATOSIS AND MILD FIBROSIS 35**

Muhammad Izzad Johari¹, Muhammad Ilham Abdul Hafidz², Rona Marie Lawenko³, Zheng Feei Ma¹, Mung Seong Wong¹, Juhara Haron¹, Chandran Nadarajan², Khairun Nisah Ibrahim¹, Yeong Yeh Lee¹

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²Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Selangor, Malaysia
³De La Salle Health Sciences Institute, Dasmariñas, Cavite, Philippines
- 2 OUTCOMES OF BIOPSY-PROVEN NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) IN SOUTH EAST ASIAN PATIENTS: A SINGLE TERTIARY CENTRE EXPERIENCE 36**

Sivesh K Kamarajah^{1,2}, Wah-Kheong Chan¹, Nik Raihan Nik Mustapha¹, Sanjiv Mahadeva¹

¹Gastroenterology and Hepatology Unit, Gastrointestinal Endoscopy Unit, Department of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia
²College of Medical and Dental Sciences, University of Birmingham, United Kingdom
- 3 A RANDOMIZED TRIAL COMPARING EMPIRICAL AND GUIDED THERAPY FOR NON-CARDIAC CHEST PAIN: A PRELIMINARY ANALYSIS 37**

Noor Purdah Abdul Kadir¹, Hady¹, Zurkurnai Yusof¹, Chandramouli Annamalai², Muhammad Ilham Abdul Hafidz², Zheng Feei Ma¹, Nurhazwani Hamid¹, Nyi Nyi Naing¹, Siti Norhasliza¹, Azliani Abd Aziz¹, Lee Yeong Yeh¹

¹School of Medical Sciences, Universiti Sains Malaysia, Kota Bharu, Kelantan, Malaysia
²Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Selangor, Malaysia
- 4 DIFFERENTIAL GENE EXPRESSION AND ALTERNATIVE SPLICING: LINKING LONG DURATION ULCERATIVE COLITIS AND COLITIS-ASSOCIATED CANCER 38**

Eden Ngah Den Low¹, Nazefah Abdul Hamid^{1,2}, Chai Soon Ngiu³, Zhiqin Wong³, Rafiz Abdul Rani⁴, Norfilza Mohd Mokhtar¹, Raja Affendi Raja Ali³

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⁴Gastroenterology Unit, Faculty of Medicine, UiTM, Sg Buloh, Selangor, Malaysia
- 5 RANDOMISED, DOUBLE-BLIND CLINICAL TRIAL ASSESSING THE EFFECT OF CULTURED MILK DRINK WITH OR WITHOUT POLYDEXTROSE IN PATIENTS WITH IRRITABLE BOWEL SYNDROME 39**

Mohd Fyza Bahrudin¹, Rafiz Abdul Rani², Thevaraajan Jayaraman², Zhiqin Wong¹, Chai Soon Ngiu¹, Tilakavati Karupaih⁴, Norfilza Mohd Mokhtar³, Raja Affendi Raja Ali¹

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⁴Faculty of Health Science, University Kebangsaan Malaysia, Kuala Lumpur, Malaysia
- 6 CIRCULATING INFLAMMATORY CYTOKINES LEVEL IN COLORECTAL CANCER PATIENTS AS A POTENTIAL DIAGNOSTIC INDICATOR 40**

Liyana Zaharuddin¹, Norfilza Mohd Mokhtar¹, Raja Affendi Raja Ali²

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EIGHT-WEEK MODIFIED ALTERNATE-DAY CALORIE RESTRICTION IS AN EFFECTIVE DIETARY STRATEGY FOR NON-ALCOHOLIC FATTY LIVER DISEASE WITH MODERATE STEATOSIS AND MILD FIBROSIS

Muhammad Izzad Johari¹, Muhammad Ilham Abdul Hafidz², Rona Marie Lawenko³, Zheng Feei Ma¹, Mung Seong Wong¹, Juhara Haron¹, Chandran Nadarajan², Khairun Nisah Ibrahim¹, Yeong Yeh Lee¹

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³De La Salle Health Sciences Institute, Dasmariñas, Cavite, Philippines

BACKGROUND

Easier to comply and with proven efficacy, modified alternate-day calorie restriction (MACR) involves alternate day of 70% calorie restriction and habitual energy intake. The aim of the study was to assess the efficacy of 8-week MACR in reduction of steatosis, fibrosis and improvement of biochemical parameters in non-alcoholic fatty liver disease (NAFLD).

METHODS

Consecutive participants with NAFLD without other liver diseases were consented. After a 2-week period of stable eating and activity habits, participants begun their 8-week MACR through the advice of a dietitian. Besides diary, participants received phone-calls and 2-weekly dietitian appointment to ensure adherence. At baseline and 8th week after intervention, BMI, blood investigations (lipid profiles, glucose and liver enzymes) and ultrasonographic (SuperSonic Imagine Aixplorer, France) assessment of liver steatosis grading (mild, moderate, severe) and shear-wave elastography (SWE) were measured.

RESULTS

A total of 105 patients were screened, 41 consented but 11 withdrew, and 30 participants (mean age 43.9 years and BMI 31.5 Kg/m², males 70%, diabetes 53%) completed the study. With 8-week MACR, significant reductions were observed in the grading of liver steatosis (40% reduction in those with moderate steatosis, $P=0.001$), SWE (mean difference 0.9, $P=0.001$), BMI (mean difference 0.6 kg/m², $P=0.003$), glucose (median difference 0.3 mmol/L $P=0.01$), ALT (median difference 20.5 U/L, $P=0.001$) and AST (median difference 9 U/L, $P=0.002$).

CONCLUSION

8-week MACR appears to be an effective dietary strategy for NAFLD especially with moderate steatosis and mild fibrosis.

OUTCOMES OF BIOPSY-PROVEN NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) IN SOUTH EAST ASIAN PATIENTS: A SINGLE TERTIARY CENTRE EXPERIENCE

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INTRODUCTION

The use of non-invasive methods to assess the severity of liver disease in NAFLD patients has gained increasing popularity. We aimed to study factors associated with advanced fibrosis in NAFLD patients, and the effect of baseline and repeat assessment on patient outcomes.

METHODS

Patients with biopsy-proven NAFLD diagnosed from November 2012 to August 2014 at the University of Malaya Medical Centre were included. Primary outcome was fibrosis progression as assessed by Fibroscan and liver biopsy. Secondary outcomes were development of cardiovascular and liver-related complications, mortality and malignancy.

RESULTS

This study included 114 biopsy-proven NAFLD patients (mean age 51.3 ± 10.5 years old, male 50 %). At baseline, advanced fibrosis based on histology and LSM was observed in 22 % and 46 %, respectively. Independent factors associated with advanced fibrosis from histology were T2DM, elevated GGT and reduced platelet. Independent factors associated with advanced fibrosis from LSM were high BMI, T2DM and elevated ALT. Repeat liver biopsy and LSM at one-year interval was done in 71 % and 80 %, respectively. High-risk cases were seen in 23 % and 53 % of patients when based on paired histology and paired LSM, respectively. Independent factors associated with high-risk cases were T2DM and elevated GGT. Median follow-up was 38 months with total follow-up of 390 person-years. Advanced fibrosis at baseline and high-risk cases had significantly higher liver-related complications at follow-up. In addition, high-risk cases based on repeat LSM had significantly higher cardiovascular events.

CONCLUSION

LSM may be as good as liver biopsy in identifying NAFLD patients with increased risk of liver-related complications. In addition, repeating LSM at one-year interval may be useful to identify high-risk patients who are at increased risk of cardiovascular events. Further studies in a larger cohort and with a longer follow-up should be done to confirm these observations.

A RANDOMIZED TRIAL COMPARING EMPIRICAL AND GUIDED THERAPY FOR NON-CARDIAC CHEST PAIN: A PRELIMINARY ANALYSIS

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BACKGROUND

Non-cardiac chest pain (NCCP) is prevalent in Malaysia with almost two-thirds a result of gastroesophageal reflux disease. Treatment approach to NCCP is currently unclear. We aimed to determine if therapy guided by results of 24-hour pH-impedance test would be better than empirical trial of PPI.

METHODS

Consecutive participants with chest pain and normal angiogram or negative stress test were consented. Participants were randomized into guided group or empirical group. In guided group, all underwent 24-hour pH-impedance test (Sandhills, US) and if GERD then eight weeks of Dexlansoprazole 30mg OD but if functional chest pain or reflux hypersensitivity then four weeks of theophylline SR 250mg OD were prescribed. In empirical group, two weeks of Dexlansoprazole 60mg OD were prescribed. Visual analog scale assessment (VAS) of chest pain, Gastroesophageal Reflux Disease Questionnaire (GERD Q), and Quality Of Life in Reflux And Dyspepsia (QOLRAD) questionnaire were evaluated during each visits at weeks 0, 2 and 8. Differences between visits were analyzed with Repeated Measures ANOVA.

RESULTS

Of 200 screened patients, 145 did not meet inclusion criteria, and 55 randomized (26 empirical and 29 guided). A further 8 withdrew (5 empirical and 3 guided). No participants experienced serious adverse events. In between-group analysis, mean VAS was improved with guided vs. empirical therapy ($P=0.07$) but not GERDQ or QOLRAD (both $P>0.7$). In within-group analysis, mean QOLRAD was significantly better at week 8 vs. 0 ($P=0.007$) for guided group and for empirical group, mean QOLRAD was better at week 2 vs. 0 ($P=0.004$) and week 8 vs. 0 ($P=0.01$). On the other hand, mean GERDQ was better at week 8 vs. 0 ($P=0.02$) for empirical group only.

CONCLUSION

In this preliminary analysis, guided therapy seems better than PPI trial in relieving chest pain symptom of NCCP patients. Both therapies improved QOL but those with GERD symptoms are better with PPI trial.

DIFFERENTIAL GENE EXPRESSION AND ALTERNATIVE SPLICING: LINKING LONG DURATION ULCERATIVE COLITIS AND COLITIS-ASSOCIATED CANCER

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OBJECTIVE(S)

Patients suffered from long duration of ulcerative colitis (UC) have high risk for colitis-associated cancer (CAC). Molecular classification of UC was previously reported using microarray technology but so far none has explored the effects of disease duration along with aberrant alternative splicing (AS). AS is known to be associated with many cancers but its relationship with CAC is unknown. We aim to identify transcriptomic changes, which include gene expression and AS events in colonic biopsies of patients with long duration as compared to short duration UC.

METHODOLOGY

To date, transcriptome profiling on 22 biopsies (7 long duration; > 20 years and 15 short duration; < 5 years) has been conducted using Affymetrix Human Transcriptome Array 2.0. Differentially expressed genes (fold change >|1.5|, ANOVA $p < 0.05$) were determined using Affymetrix Transcriptome Analysis Console (TAC). Analysis using KEGG was established using KOBAS 3.0. TAC was also used to identify AS events (splicing index >|1.5|, ANOVA $p < 0.05$).

RESULTS

A total of 167 significantly differentially expressed genes (117 up- and 50 down-regulated genes) were found between long and short duration UC. Among them, SEMA5A is an up-regulated gene that had been reported to be associated with CAC. Twenty-one pathways showed enrichment ($p < 0.01$), the top three pathways being bile secretion, metabolic and PPAR pathways. PI3K-Akt and AMPK signaling pathways were the most prominent pathways that have shown relation with CAC. Analysis of AS revealed 2,465 genes exhibited significant differential splicing between long and short duration UC. Among them was ELTD1 that was reported to be progressively and significantly up-regulated from healthy controls to UC without and with neoplasia.

DISCUSSION AND CONCLUSION(S)

Patients with long duration UC have differentially expressed genes related with CAC, and most are supported with the AS events in these genes. Further validation is required to understand the pathogenesis of CAC.

RANDOMISED, DOUBLE-BLIND CLINICAL TRIAL ASSESSING THE EFFECT OF CULTURED MILK DRINK WITH OR WITHOUT POLYDEXTRROSE IN PATIENTS WITH IRRITABLE BOWEL SYNDROME

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OBJECTIVES

Irritable bowel syndrome (IBS), with constipation-predominant (IBS-C) is a common global disorder and its prevalence in Malaysia is estimated at 16%, consistent with more Malaysians are known to consume less high-fibre diet. We aimed to assess the effects of cultured milk drink containing with or without polydextrose in patients with IBS-C on faecal pH, faecal weight and intestinal transit time (ITT).

METHODS

IBS-C patients were randomised to either group A (350 mL of cultured milk drink with 5.85g polydextrose) or group B (350 mL drink without polydextrose). All patients consumed the test product once daily for a week. Faecal pH, faecal weight, oro-faecal ITT and symptoms of constipation were assessed pre and post consumption. Any adverse effect was recorded.

RESULTS

Total of 163 IBS-C patients with 79 in group A and 84 in group B. Among these, 78.6% women and 21.4% men and the majority was Malays (73.1%), followed by Chinese (24.5%) and Indians (1.2%). Mean age was 32 ± 12 years old. Faecal pH for group A and B was significantly reduced from 6.57 ± 0.96 to 6.13 ± 0.95 and 6.58 ± 1.0 to 5.86 ± 0.83 respectively (P < 0.05). Faecal weight for group A was increased from 8g +/- 6.4g to 9.8g +/- 7.6g but reduced for group B; from 13.3g +/- 19.4g to 11.2g +/- 6.6 (p > 0.05). There is a significant reduction of the ITT from 63.5 ± 34.9 to 44.5 ± 28 hours and 54.7 ± 28.1 to 38.8 ± 25.3 hours for group A and B respectively (P < 0.05). Overall IBS-C related symptoms were improved and no adverse event was reported in both groups.

CONCLUSION

Daily consumption of cultured milk drink with and without polydextrose is well tolerated and improved constipation among patients with IBS-C. Despite no significant difference between faecal weight pre and post consumption of cultured milk drink for both groups, we observed an increment of faecal weight after the consumption of cultured milk drink with polydextrose.

CIRCULATING INFLAMMATORY CYTOKINES LEVEL IN COLORECTAL CANCER PATIENTS AS A POTENTIAL DIAGNOSTIC INDICATOR

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OBJECTIVE

Interaction between cytokines is part of the immune component in tumour microenvironment of colorectal cancer (CRC). The aim of this study was to determine the baseline level of circulating cytokines, proinflammatory (TNF α , IL6, IFN γ , IL10, IL22 and IL17A) and anti-inflammatory (IL12) in CRC patients as compared to healthy controls.

METHODOLOGY

A total of 28 Dukes' B and C (n=14 each) CRC preoperative serum samples were taken for cytokine measurement. As a comparison, similar measurement was done to eight healthy individuals. Serum cytokine levels were assayed using PrimePlex™ immunoassay. We applied Mann-Whitney test with level of significance at p <0.05.

RESULTS

Majority of the cytokines were significantly higher in CRC patients as compared to controls. These include IL6 (63.5 \pm 99.7 versus 7.5 \pm 6.6 pg/mL), IL12 (5.6 \pm 4.5 versus 2.5 \pm 7.9 pg/ml), IL22 (70.1 \pm 191.8 versus 18.9 \pm 52.6 pg/mL), IL17A (8.0 \pm 5.6 versus 0.00) and IL10 (5.9 \pm 5.0 versus 0.00) (P<0.05). Two cytokines namely TNF α (27.0 \pm 41.0 versus 26.7 \pm 44.0 pg/mL) and IFN γ (173.0 \pm 327.3 versus 54.7 \pm 65.3pg/mL) showed higher levels in CRC as compared to controls but the data were not statistically significant. Two cytokines, IL17A and IL10, were detected only in CRC samples but not in controls with serum level of 8.0 \pm 5.7 and IL10 = 5.9 \pm 5.0 pg/mL respectively. These cytokines were not detectable in controls as the concentrations were too low and lied beyond the lower limit of quantification.

DISCUSSION & CONCLUSION

The present data was consistent with the previous findings whereby majority of the listed cytokines were higher in CRC as compared to healthy controls. However, this study has detected higher level of IL12 in CRC, which is in contrast with previous report that showed lower level of IL12 in advanced stage of CRC with positive nodes. Further works will try to explore at the mRNA level of this cytokines with different types of samples.

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A RANDOMISED OPEN-LABEL CLINICAL TRIAL TO COMPARE EFFICACY OF ALGINATE-ANTACID AND ANTACID ALONE IN POST-SUPPER SUPPRESSION OF ACID POCKET, GASTROESOPHAGEAL REFLUX AND SYMPTOMS AMONG OBESE PARTICIPANTS

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BACKGROUND

Heavy-size snacks during supper may cause night-time gastroesophageal reflux (GER) especially among obese individuals. The aim was to compare efficacy of alginate-antacid (Gaviscon Advance, Reckitt Benckiser, UK) and antacid alone in post-supper suppression of acid-pocket, GER and symptoms among obese participants.

METHODS

Consented obese participants underwent 48-hours of wireless pH-metry (Bravo capsule, Medtronic, USA) placed at cardia (acid-pocket) alongside pH-impedance probe (MMS, Netherlands) with pH sensor 5-cm above lower esophageal sphincter (LES). Snacks (two burgers and 250 mL drink) were given at 10 pm for two nights. Participants were randomised to single administration of either alginate-antacid or antacid in an open-label fashion on the second night, 10-min after snacks. The pH at cardia and 5-cm above LES, frequency of acid refluxes (pH < 4) and symptoms were measured every 10-min after supper.

RESULTS

Eighteen participants (mean age 33.5 and BMI 32.8 Kg/m²) entered the trial, with nine participants each group. Significant pH suppression of acid pocket was observed with alginate-antacid vs. antacid (median pH difference 2.7, P = 0.008). The frequency of acid refluxes was also less after alginate-antacid vs. antacid (median difference 2.2, P = 0.03) although no significant difference in pH of GER was observed between the two groups. Symptoms (heartburn, regurgitation) were not different between the two groups (all P > 0.05).

CONCLUSION

Alginate-antacid is more efficacious than antacid in post-supper suppression of acid-pocket and frequency of GER but similar in pH suppression of GER and symptoms in obesity.

ACKNOWLEDGEMENT

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RELATIONSHIP BETWEEN CYTOKERATIN-18, FIBROSIS SCORE, FIBROSCAN® FINDINGS IN DIFFERENT DEGREE OF HEPATIC STEATOSIS IN NON-ALCOHOLIC FATTY LIVER DISEASE

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BACKGROUND

Assessment of patients with non-alcoholic fatty liver disease (NAFLD) can be laborious. The aim of this study was to assess the correlation between serum cytokeratin-18(CK-18), NAFLD fibrosis score, controlled attenuation parameter(CAP) measured by transient elastography(TE) in NAFLD patients with different degree of hepatic steatosis stratified by liver ultrasound(US).

METHODS

Patients diagnosed with NAFLD and stratified by liver US into mild (S1), moderate (S2), and severe (S3) degree of hepatic steatosis were recruited along with their NAFLD fibrosis score. The CAP value and serum CK-18 level were measured using TE and enzyme-linked immunosorbent assay (ELISA) respectively.

RESULTS

A total of 109 NAFLD patients were recruited. NAFLD fibrosis score was poorly correlated with all degrees of hepatic steatosis ($r_s = -0.105$, $p = 0.392$). The serum CK-18 levels and CAP values were significantly correlated with different degrees of hepatic steatosis with $r_s = 0.68$ and 0.56 , $p = 0.001$, respectively. Area under receiver operating characteristics(AUROC), sensitivity, specificity for hepatic steatosis of $S \geq 2$ and $S \geq 3$, using cut-off value of serum CK-18 levels at 194U/L and 294 U/L were(0.82, 70%, 82.6%), and(0.84, 66.7%, 91.8%) respectively. AUROC, sensitivity, specificity for for hepatic steatosis of $S \geq 2$ and $S \geq 3$, using cut-off CAP values at 263db/m and 319db/m were(0.76, 86.7%, 47.5%) and(0.77, 90.9%, 59.3%), respectively.

CONCLUSIONS

Serum CK-18 levels and CAP values (not NAFLD fibrosis score) were significantly correlated with moderate and severe degrees of sonographically proven hepatic steatosis in patients with NAFLD.

DETECTION RATE OF COLONIC POLYP AMONG PATIENTS WHO HAVE UNDERGONE COLONOSCOPY AT GASTROENTEROLOGY UNIT OF SERDANG HOSPITAL

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OBJECTIVE

The primary objective of this study is to evaluate the demography, and detection rate of polyp at our local Malaysian tertiary hospital.

METHOD

This is a retrospective study of all the patients that had undergone colonoscopy at Gastroenterology endoscopy unit, Serdang Hospital from 1st January 2010 to 31st December 2016. Those who had history of colorectal cancer, polyp or inflammatory bowel disease were excluded. Data of interest which included patients' demography, indication for colonoscopy, colonoscopy finding, as well as histopathology results were identified and recorded. Data were further analyzed with SPSS version 16.

RESULTS

A total of 725 colonoscopies were performed within this time frame. Only 559 had fulfilled the inclusion criteria and were included in our study. Distributions of male and female subjects in our study were nearly equal (54% and 46% respectively). The majority of our patients were Malay and Chinese (43% and 40%). In terms of age, 80% of them were in between age 40-79 years. Anemia was the most common indication for colonoscopy. A total of 112 patients were found to have at least one polyp giving the detection rate of 20% and 168 polypectomies were performed. We found that the commonest morphology of polyp in our patients was sessile (58%) and majority was medium size (5-10mm). Three patients had multiple polyposis coli over entire large bowel. Otherwise, most of the polyp found were located in the recto sigmoid region (31.5%) followed by descending colon (23.8%), ascending and transverse colon (both 13%) and cecum 12.5%. 62.5% of the polyp detected were adenoma (tubular 47.6%, tubulovillous 45.7% and villous 6.7%). This was followed by non-adenoma/hyperplastic (17.9%), adenocarcinoma 7.7%, inflammatory 4.8%, serrated 4/2% and juvenile 1.8%.

CONCLUSION

The detection rate of colonic polyp from colonoscopy is 20% in our center.

REDUCTION OF PROTON PUMP INHIBITOR (PPI) USAGE IN PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE (GERD) AFTER UNDERGOING STRETТА PROCEDURE, AN EAST MALAYSIA PERSPECTIVE

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OBJECTIVES

Stretta is an endoscopic procedure that delivers radiofrequency energy through electrodes to the lower esophageal sphincter and gastric cardia to treat GERD. This retrospective study evaluates the efficacy of Stretta on GERD patients based on reduced PPI usage 6 months after Stretta and to determine if age and sex of patients are significant factors that affect that outcome.

METHODOLOGY

From November 2015 – December 2016, 25 patients underwent Stretta procedure. All patients with GERD were diagnosed by the presence of clinical symptoms and gastroscopy. 2 patients who defaulted follow up were excluded. Usage of PPI by type, dosage and frequency before Stretta was recorded and compared to after Stretta 6 months later.

RESULTS

The mean age of patients was 41.4 years old. 65.2% were males, 34.8% females. 100% of patients were on regular PPI therapy at baseline. 6 months after Stretta, 73.9% of patients were able to taper PPI usage. 17.4% of patients were weaned off PPI, 34.8% reduced to on-demand PPI usage, 21.7% had reduction in daily PPI dosage. However, 17.4% required the same PPI usage while 8.7% required more PPI usage. 87.5% of patients aged below 50 had a reduction in PPI usage while only 42.9% of patients above aged 50 and above had reduction in PPI usage (P value 0.045). 87.5% of female patients compared to 66.7% of male patients had reduction in PPI usage (P value 0.369).

DISCUSSION

Stretta is effective to reduce GERD patient PPI usage at 6 months. Age below 50 is significant for predicting a better chance to taper PPI usage 6 months post procedure while gender is not a significant factor.

CONCLUSION

A longer follow up period and more patients will be required to determine the long term benefit of Stretta to GERD patients.

A SUBSTANTIAL PROPORTION OF PATIENTS WITH CHRONIC HEPATITIS B HAVE SIGNIFICANT FIBROSIS AND CONCOMITANT FATTY LIVER: RESULTS FROM A CROSS-SECTIONAL STUDY USING FIBROSCAN® AT A MAJOR TERTIARY HOSPITAL IN MALAYSIA

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INTRODUCTION

Liver stiffness measurement (LSM) by Fibroscan® is increasingly used to estimate hepatic fibrosis in the management of patients with chronic hepatitis B. The controlled attenuation parameter (CAP), which is derived from the same during LSM, has been used to estimate hepatic steatosis. We aimed to study the presence of significant fibrosis and the association between significant fibrosis and significant steatosis based on Fibroscan® in patients with chronic hepatitis B.

METHODS

Consecutive patients with chronic hepatitis B who underwent Fibroscan® from January 2016 to December 2016 were included in this study. LSM was considered reliable if IQR/median was ≤ 30 %. Significant fibrosis ($\geq F2$) was defined as LSM ≥ 8 kPa. CAP was considered reliable if IQR was ≤ 40 . Significant steatosis ($\geq S1$) was defined as CAP ≥ 248 dB/m. Normal ALT was defined as < 40 U/L.

RESULTS

Data for 265 patients were analyzed (mean age 55 ± 13 years old, male 48.9%, Chinese 80.5%, Malay 17.7%, Indians 1.5%, others 0.4%). Significant fibrosis was observed in 28%. Significant steatosis was observed in 33%. Patients with significant steatosis were not more likely to have significant fibrosis compared with patients without significant steatosis (36.5% vs. 63.5%, $p=0.466$). Of the 29 HBeAg-positive patients with normal ALT, 24.1% had significant fibrosis. Of the 189 HBeAg-negative patients with normal ALT, 24.3% had significant fibrosis.

CONCLUSION

A substantial proportion of patients with chronic hepatitis B who underwent Fibroscan® had significant fibrosis and should be considered for treatment. One third of patients had concomitant fatty liver but the presence of fatty liver did not appear to be associated with significant fibrosis.

UNUSUAL PRESENTATION OF MECKEL'S DIVERTICULUM WITH MASSIVE LOWER GASTROINTESTINAL BLEEDING

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Meckel's diverticulum (MD) is the most common congenital malformation of the gastrointestinal tract due to incomplete obliteration of the proximal portion of the omphalomesenteric duct in the 7th week of gestation. MD is mostly clinically silent, particularly in the adult.

CASE REPORT

20 years old, male with no previous medical illness presented with per rectal bleeding for 3 days. Initially, he was treated as symptomatic anaemia secondary to hemorrhoid. In view of haemodynamic instability and drop in hemoglobin, patient required OGDS, colonoscopy and ICU admission. CTA abdomen done showed no significant abnormality and unable to demonstrate active bleed. Patient underwent emergency laparotomy in view of ongoing bleeding. Lower midline laparotomy, segmental small bowel resection of Meckel's diverticulum and primary end to end small bowel anastomosis was done. Intra-op, bleeding Meckel's diverticulum, 30cm from ileocaecal junction, measuring about 4cm in length with broad base. Patient was discharge home well on day 4 post-op.

DISCUSSION

Fewer than 10% of cases of complicated MD in adults are diagnosed preoperatively. Haemorrhage from a Meckel's diverticulum is very rare in the adult age group. The haemorrhage can be slow and occult or massive and dramatic, manifesting in a bright red colour in the stool. Heterotopic mucosa is found in almost 100% of patients with gastrointestinal bleeding due to Meckel's diverticulum.

CONCLUSION

Due to its rarity, high index suspicion is necessary as clinical presentation is variable, differential diagnosis is not straightforward and imaging techniques may not be useful. This complication remains underdiagnosed, often with delayed surgical intervention and sub-optimal treatment that leads to significant morbidity and mortality.

CURRENT STATUS OF INFLAMMATORY BOWEL DISEASE AT SERDANG HOSPITAL

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BACKGROUND

Inflammatory bowel disease (IBD) is chronic inflammation of all or part of our digestive system.

OBJECTIVE

To study the demographic profiles, and clinical presentations of IBD among the patients attending Serdang Hospital.

METHODS

The database of all patients with IBD followed up at Serdang Hospital from 1st January 2006 to 31st March 2017 was analyzed retrospectively.

RESULTS

48 patients were diagnosed with IBD (40 UC and 8 CD), with slight female predominance in UC (male/female ratio of 1:1.35), but equal sex distribution for CD.

The mean age was 27 years old in UC, while 42 years old in CD. In our study, the Indians were found to have the highest prevalence of CD, with the prevalence of 50.0%. 25.0% of the CD patients were smoker. All our patients denied of having family history of IBD. UC presented mostly with chronic diarrhea and rectal bleed, while CD with chronic diarrhea and abdominal pain. Among the UC cases, 40.0% had left sided colitis and 35% extensive colitis. In CD, 50.0% were colonic. 62.5% of the CD patients were non- penetrating, and non- stricturing. Most of the IBD patients were anaemic. None of our patients with IBD was detected with colorectal cancer during the follow up.

DISCUSSION

Our study showed the increasing diagnosed cases of IBD recently, which was coherent with the reported increasing incidence of IBD in Asian countries.

CONCLUSION

IBD is rare in Malaysia, but the increasing new cases should alert our awareness.

PANCREATIC FLUID COLLECTIONS DRAINAGE VIA EUS-GUIDED PLACEMENT OF FCSEMS: A SINGLE TERTIARY CENTRE EXPERIENCE

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OBJECTIVE

Pancreatic fluid collections (PFCs) secondary to acute or chronic pancreatitis is increasingly drained endoscopically. Therefore, the objective of this study was to assess the safety and efficacy of EUS-guided fully covered self-expandable metal stents (FCSEMS) placement in relieving the PFCs.

METHODS

A retrospective observational study was carried out on 25 patients diagnosed with symptomatic pancreatic pseudocysts (20 pancreatic pseudocysts and 5 walled-off pancreatic necrosis). The patients were diagnosed and managed in Selayang Hospital, Malaysia (Single tertiary centre) between 1 May 2014 and 1 May 2017. The therapeutic outcomes and procedure-related complications were analysed.

These patients were divided into 2 groups: pancreatic pseudocyst (n = 20) with fully covered self-expanding metal stent (Nagi stent, Taewoong Medical, Seoul, South Korea) and walled-off pancreatic necrosis (n = 5) with fully covered metal stent for lumen apposition (Niti-S Spaxus; Taewoong Medical Co, Ltd, Ilsan, South Korea).

RESULTS

The SEMS were all successfully employed in all patients under endoscopic transmural placement (25/25). The stent were left in place for an average of 55 days. The reported aetiology were gallstone (52.0%), alcoholic (20.0%), idiopathic (12.0%), hypertriglyceridemia (8.0%), traumatic (4.0%), and metastatic (4.0%). The clinical success was 84.0% (21/25). The early complications associated with the procedure were only abdominal pain (12.0%). Late complications encountered were infection (16.0%), stent migration (8.0%) and recurrence of pseudocyst (8.0%). All the SEMS were removed without any complications. Univariate analysis of age, sex, aetiology and pseudocyst size did not demonstrate any significant predictive factors for the resolution of pancreatic pseudocyst.

CONCLUSION

Proper selection of FCSEMS in carefully selected patients can promise successful drainage of pancreatic fluid collections (PFCs) with low complication rate.

ACUTE PANCREATITIS COMPLICATED WITH EXTENSIVE THROMBOSIS INVOLVING SPLANCHNIC CIRCULATION

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INTRODUCTION

Acute pancreatitis is commonly associated with complication of venous thrombosis due to the overwhelming systemic inflammatory response syndrome and cytokine storm. There are reported cases of splanchnic and extra-splanchnic thrombosis post-acute pancreatitis. In our case, we noticed the extensive thrombosis affecting both arterial and venous splanchnic circulatory system post-acute pancreatitis.

OBJECTIVE

A case presentation and literature review on management of acute pancreatitis with complication of venous thrombosis

CASE PRESENTATION

52 years old man with poorly controlled diabetes mellitus presented with of typical history and serum amylase of 1393 units per litre and was treated as moderate acute pancreatitis with the complication of acute kidney injury. The ensuing workup revealed acute necrotizing pancreatitis complicated with extensive thrombosis involving splanchnic circulation (The thrombosis involved coeliac trunk, common hepatic artery, proximal gastro-duodenal artery and entire splenic artery as well as the splenic vein). His workup for hypercoagulability and IgG4 was negative. We had initiated anticoagulation but he developed overwarfarinization and complication of walled off pancreatic necrosis. He underwent percutaneous drainage of pseudocyst via pigtail catheter. Unfortunately, he succumbed to overwhelming infection.

DISCUSSION

Our cornerstone management for this patient was hydration, correction of electrolytes imbalance, enteral nutritional support, anticoagulation for extensive thrombosis, drainage of wall-off necrosis and giving broad-spectrum carbapenem group antibiotic. The optimal therapy would comprise necrosectomy.

CONCLUSION

Severe pancreatitis with the complication of pancreatic necrosis and splanchnic circulatory system thrombosis is not rare. Early diagnosis and timely intervention remain the key management in this difficult case.

A CASE SERIES OF PATIENTS WITH NON-OPERABLE HEAD OF PANCREATIC CANCER TREATED WITH EUS-GUIDED RADIOFREQUENCY ABLATION (EUSRA) AT A TERTIARY CENTRE

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OBJECTIVE

To determine the feasibility, safety, adverse events, and early results of endoscopic ultrasound radiofrequency ablation (EUS-RA) among inoperable pancreatic head cancer patients.

METHODS

We had recruited a series of locally advanced pancreatic cancer patients whom refused palliative chemotherapy. Without therapy, their median survival is less than 12 months. All 10 patients was confirmed pancreatic head tumor based on histological confirmation. All had EUS prior to EUS-guided RFA. The EUS-RFA system used consists of an 18 Gauge 10 mm needle electrode and generator. All EUSRA done at 50 Watts under real time visualization.

RESULTS

Patient age ranged from 51 years old to 81 years old (Mean age 66 years old). All of them receive single fraction of RFA applied at 50 watts lasting 10 seconds. Technical success was 100% without immediate procedure-related complications. Mean time of patient succumbed was 1 month. Average size of the cancer was 3.8 cm (Minimum 2cm; maximum 6 cm; mean 3.8cm). All tolerated the procedure well. All had symptom relief with biochemical improvement.

CONCLUSION

The experience to date showed EUSRA was safe and effective in palliative pancreatic head tumor albeit more data needed for safety and efficacy profile assessment.

COMPARING THE BCLC AND HKLC STAGING SYSTEMS IN THE MANAGEMENT OF HEPATOCELLULAR CARCINOMA IN A TERTIARY CENTRE IN MALAYSIA

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BACKGROUND

Hepatocellular carcinoma (HCC) is the second leading cause of cancer-related mortality worldwide. The Barcelona Clinic Liver Cancer (BCLC) staging system is widely used in the management of HCC. However, a recent study showed that the Hong Kong Liver Cancer (HKLC) staging system was superior compared with the BCLC system in identifying subsets of patients for more aggressive treatments.

OBJECTIVE

The objective of this study was to compare these two staging systems in a tertiary centre in Malaysia.

METHODOLOGY

This was a retrospective review of all newly diagnosed HCC cases at the University of Malaya Medical Center between 2011 and 2014. Patients were staged according to the BCLC and HKLC staging systems. The Kaplan-Meier curve was used to analyze the survival times and the log rank test was used to compare survival times between stages. To test the agreement between the two staging systems, weighted kappa was used.

RESULT

Data for 190 patients were analyzed (mean age 61.7 ± 12.3 years old, 73.2% male). The most common etiology was chronic hepatitis B infection, and 62.1% of patients had liver cirrhosis at the time of presentation. Although the survival times were significantly different across the stages (p -value < 0.05 using either staging systems), there was a lack of agreement between the BCLC and HKLC staging systems (weighted kappa = 0.519, 95% CI 0.449 – 0.589). In pairwise comparisons between the 5 stages of BCLC and HKLC staging systems, there was significant difference in the median survival times in BCLC Stage A vs HKLC Stage 2 and BCLC Stage C vs HKLC Stage 4 (p -value < 0.05).

DISCUSSION AND CONCLUSION

There is lack of agreement between the two staging systems with significant difference in the median survival times observed between BCLC Stage A vs HKLC Stage 2 and BCLC Stage C vs HKLC Stage 4.

A REVIEW OF RELATIONSHIP BETWEEN SERUM ALPHA FETOPROTEIN AND HCC TUMOUR SIZE, DOES IT REALLY CORRELATE?

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OBJECTIVE

The purpose of this study is to determine whether there is a correlation between serum AFP level and tumour size in HCC, particularly within Perlis population.

METHODS

A cross-sectional analytical study was done at Medical Outpatient Department, Hospital Tuanku Fauziah from January 2011 to December 2016. Only patients with multiphase CT scan proven HCC were selected. Serum AFP, viral hepatitis B and C status and basic demographic data such as age, gender and ethnicity, were recorded. Correlation between serum AFP levels and tumour size was analysed by applying Spearman's rank correlation with r -value of 0.05 being considered significant.

RESULTS

Review of the clinical data of 69 patients male 57 (82.6%) and female were 12 (17.4%) with mean age of 58.55 ± 9.614 ranging from 32 to 83 years was done. Of these, 47 (68.1) were Malay in ethnicity, 14 (20%) Chinese, 4 (5.8%) Indian and 4 (5.8%) others. 21 (30.4%) patients were having HBV and 18 (26.1%) were having HCV. No patient was having both HBV and HCV co-infection. In terms of its correlation with serum AFP level, there was a significant correlation of serum AFP level with tumour size in hepatocellular carcinoma. ($r=0.059, 0.044$).

CONCLUSION

This study suggests that serum AFP has significant correlation with tumour size. AFP level may be used as a marker to differentiate between early and advance stage and so, it could helpful to prognosticate the disease.

ETHNICITY INFLUENCES ON PHENOTYPE AND CLINICAL OUTCOME OF IBD COHORT AT UKM MEDICAL CENTRE

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OBJECTIVE

Little is known about ethnicity influences on phenotype, clinical characteristics and outcome among patients with inflammatory bowel disease (IBD) and its related neoplasia in an urban multi-ethnic population. This study aimed to address these issues.

METHODOLOGY

Retrospective analysis of IBD cases: ulcerative colitis (UC) and Crohn's disease (CD), diagnosed from January 1980 till December 2016 was conducted at UKMMC.

RESULTS

A total of 220 IBD cases {70 CD, 150 UC; 80 females, 140 males; 41 Chinese, 57 Indians, 122 Malays; mean age diagnosis (years) at 29.09 for CD and 41.73 for UC} were identified. There were 22 active, 29 ex-, and 169 non-smokers. Education level: 5 primary, 78 secondary, 137 tertiary. Disease classification for UC: proctitis 16 (10.6%), left sided 60 (40%), extensive 74 (49.4%), for CD: upper GI 1 (1.5%), ileal 18 (25.7%), colonic 18 (25.7%), ileo-colonic 33 (47.71%); stricturing and penetrating 3 (4.3%), penetrating 3 (4.3%), stricturing 15 (21.4%), perianal 17 (24.3%), non-stricturing non-penetrating 49 (70%). Fistulizing CD: 5 (7.1%) Chinese, 8 (11.4%) Malays, 10 (14.3%) Indians. Extra-intestinal manifestations were observed in 22 (10%) patients. Major comorbidities were diabetes mellitus 40 (18.2%), hypertension 38 (17.3%) and dyslipidemia 25 (11.4%). Medications received: Mesalazine 172 (78.2%), immunomodulators 77 (35%), biologics 14 (6.4%). Surgical treatment were received by 36 (16.4%) {11 UC, 25 CD} patients. Thirteen (5.9%) {12 UC, 1 CD} patients had IBD-related neoplasia and mostly were Indians, non-smokers, with extensive, long-standing inactive (remission or mild) disease associated with poorly controlled diabetes mellitus (mean HbA1c = 8.98%).

CONCLUSION

IBD mostly prevailed among Malays followed by Indians and Chinese. Most patients were males, non-smokers, educated, diagnosed at young age, with extensive disease for UC and ileo-colonic, non-stricturing non-penetrating disease for CD (Indians dominated fistulizing CD). Indians with extensive and long-standing inactive disease having poorly controlled diabetes were heavily linked with IBD-related neoplasia.

KEYWORDS

inflammatory bowel disease, ulcerative colitis, crohn's disease, neoplasia, multi-ethnic.

CIRRHOSIS IN CENTRAL PAHANG: A VIEW FROM DISTRICT HOSPITAL SETTING

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OBJECTIVES

To identify the epidemiology of cirrhosis in central pahang.

METHODOLOGY

A retrospective study of cirrhotic patients who attended gastroenterology clinic in Hospital Temerloh from 2011 till 2017. Data were collected and analysed from patients case note from the hospital's electronic medical records .

RESULTS

A total of 153 patients with liver cirrhosis attended gastroenterology clinic at HOSHAS, of which 111 (72%) patients were male and 42 (27%) patients were female. Majority were of Malay ethnicity (n =128,83%) and there the rest of them were chinese (n=19,12% %) and Indian (n= 6,5%) The most common cause of liver cirrhosis is Hepatitis C (n=58 ,37%) followed by Hepatitis B (n=43, 28%) Cryptogenic(n=33,21%), Hepatis B+ C co infection (n=6,4%), NASH (n=5,3%) and Alcohol (n=4,2.6%) There were also 3 patients with autoimmune hepatitis and 1 patient who has Congenital Hepatic Fibrosis. 105(68%) patients were Child's Pugh A, 28(18%) patients were Child's Pugh B and 20 (13%) patients were Child's Pugh C patients at presentation. The most common complication encountered by our patients was oesophageal varices (n=86,56 %) followed by hepatic encephalopathy (n= 20,13 %), hepatoma (n=18, 11%) and spontaneous bacterial peritonitis (n=10, 6%). It is also interesting to note that 32 % of the cirrhotic patient were diabetic.

DISCUSSION AND CONCLUSION

Viral hepatitis remains as a commonest cause of cirrhosis followed by cryptogenic causes.

WILSON'S DISEASE(WD): SPECTRUM, TREATMENT AND OUTCOME IN A TERTIARY LIVER REFERRAL CENTRE

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OBJECTIVE

To analyse the spectrum of disease, treatment & outcome of WD patients.

METHODOLOGY

A retrospective study of 50 patients with WD from 1 January 2000 till 31 March 2017

STUDY POPULATION

WD mainly affect Female (66%) than Male (34%), predominantly Chinese (66%), followed by Malay (24%), Indian (12%), others (2%), Mean age of diagnosis =20.4 year olds

DISEASE SPECTRUM

Exclusive hepatic symptoms(84%), presymptomatic (6%), mixed presentation(10 %)

Presentation upon diagnosis mainly liver cirrhosis (76 %). For those who had liver cirrhosis, majority had liver decompensation (58%) while 42 % had none.

18 % of patient presented as Acute liver failure

TREATMENT

94 % patients was on penicillamine based therapy once diagnosed WD. During the course of the treatment, 9 patients was changed to Trientine and 8 patient was changed to zinc monotherapy. The reason for the changes was due to the side effects of Penicillamine:- Rash (n=3), itchiness (n=1), proteinuria (n=2), haematuria (n=3), AKI (n=1), anaemia (n=1) neutropenia (n=1), hyperprolactinaemia with myasthenia gravis (n=1), mucositis (n=2). Noncompliance (n=1)

OUTCOME

29 patient survived while 18 patients had succumbed to their illness, 3 patient loss in follow up. 3 patients had liver transplant for ACLF (n=1), decompensated WD (n=2), however only 1 survived.

CONCLUSION

This study had showed that WD in our population are young, more female & Chinese population. Majority of the patients had hepatic presentation during initial presentation and mostly have liver cirrhosis upon diagnosis. Patient presented with Fulminant WD are not uncommon. Intolerance to Penicillamine was reported in 1/3 of the patients. At the end of the follow up, the mortality was 36%

RARE PRESENTATION OF A COMMON DISEASE: A CASE REPORT

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A case of 26 chinese male with chronic active hepatitis B suffering from progressive numbness of extremities with intermittent episodes of severe cramping abdominal pain over 3 months period associated with intermittent fever and unexplained weight loss. On physical examination, he had fever, general malaise, muscle weakness in both upper and lower extremities. Neurological examination indicated predominant sensory and motro disturbances. Biochemically showed elevated inflammatory markers and negative for other autoimmune disorders. Nerve conduction studies is suggestive of mononeuritis multiplex in the upper and lower limbs. Ct scan of abdomen and MRI of brain showed fatures suggestive of vasculitis involving the medium and small arteries in the brain, liver, kidneys, spleen and superior mesenteric arteries branches. A biopsy of sural nerve was not taken as patient himself refused to consent. Considering the clinical, biochemical and radiological data together, he was diagnosed as having polyarteritis nodosa (PAN) secondary to chronic active hepatitis B infection. He continued to deteriorated despite receiving combination of pulse corticosteroid, tenofovir and plasmapheresis. This case described the challeges hurdled in managing such a rare case.

KNOWLEDGE, ATTITUDE, PRACTICE AND AWARENESS TOWARDS COLORECTAL CANCER SCREENING AMONG PRIMARY CARE PHYSICIANS AT THE MAJOR PUBLIC TEACHING HOSPITALS IN MALAYSIA

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BACKGROUND

In Malaysia, colorectal cancer (CRC) is commonest cancer for men and second commonest cancer for women. Despite that, CRC screening uptake among Malaysians is extremely poor. Primary care physicians (PCPs) are believed to be fundamentally important to influence patients to undergo screening test. So far, little is known about the knowledge, attitude, practice and awareness towards CRC screening among PCPs in Malaysia. Therefore, we aim to explore these issues in relation to CRC screening among PCPs in major public teaching hospitals in Malaysia.

METHODS

We conducted a cross sectional study from October 2016 to December 2016 at 5 major public teaching hospitals (UKM, UM, USM, UiTM, and UPM) in Malaysia. Validated questionnaires were adopted from research program, National Cancer Institute, USA and given to PCPs to assess their knowledge, attitude, practice and awareness towards CRC screening.

RESULTS

A total of 70 PCPs were participated in this study. Out of 70 PCPs, 68 (97.1%) have good awareness, 51 (72.9%) have positive attitude and only 39(56%) have average knowledge towards CRC screening. A total of 39 (55.7%) of PCPs were admitted to follow CRC screening guidelines and recommendations in their daily clinical practice. While only 40 (58.6%) of PCPs were admitted to practice colorectal cancer screening to their patients. The absence of national CRC screening test policy along with the shortage of endoscopic provider were the significant factors that limit the practice of CRC screening among PCPs ($\chi^2=16.963$, $p<0.001$ and $\chi^2=4.062$, $p=0.044$).

CONCLUSION

Primary care physicians in major public teaching hospitals in Malaysia have average knowledge and positive attitude as well as good awareness and practice towards CRC screening. The absence of national CRC screening policy along with the shortage of endoscopists was the limiting factors among PCPs to practice CRC screening.

DO SAME CUT-OFF VALUES FOR CONTROLLED ATTENUATION PARAMETER (CAP) APPLY FOR BOTH M PROBE AND XL PROBE OF TRANSIENT ELASTOGRAPHY (FIBROSCAN®)?

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OBJECTIVE

The XL probe generates lower liver stiffness values than the M probe in the same patient but similar data on controlled attenuation parameter (CAP) as a measurement of hepatic steatosis are scarce. We aim to test the hypothesis that the same CAP cut-offs can be used for both probes.

METHODS

We included subjects who had a liver biopsy and reliable FibroScan examination using both M and XL probes simultaneously. Hepatic steatosis was graded as S0, <5%; S1, 5-33%; S2, 33-66%; S3, >66%.

RESULTS

Data for 146 patients were analyzed (mean age 52.4 ± 10.7 years old, 45.9% male, mean BMI 28.5 ± 6.5 kg/m², NAFLD, 82.2%; HBV, 5.5%; HCV, 2.1%; others, 10.3%). The distribution of steatosis grade was S0, 11.0%; S1, 26.0%; S2, 41.1%; S3, 21.9%. There was strong positive correlation ($r = 0.75$, $p < 0.001$) between CAP measured by M and XL probes. Mean CAP using the XL probe was significantly higher compared with the M probe in the overall population (319 dB/m vs 306 dB/m, $p < 0.001$) and for each of the steatosis grades (S0, 232 vs 220 dB/m; S1, 303 vs 295 dB/m; S2, 340 vs 325 dB/m; S3, 341 vs 326 dB/m, $p < 0.001$ for all comparisons). The M and XL probes had similar diagnostic accuracy for steatosis grade ≥S1 (good to excellent), ≥S2 (fair) and S3 (poor), but the optimal cut-off appeared higher for the XL probe compared with the M probe. However, the difference in sensitivity and specificity between the two probes appeared small and not clinically significant when using 248 dB/m, 268 dB/m and 280 dB/m as cut-offs for steatosis grades ≥S1, ≥S2 and S3, respectively.

CONCLUSION

While the XL probe produces significantly higher CAP compared with the M probe, similar cut-offs may be used for both the probes.

HEPATITIS C TREATMENT OUTCOMES AND PREVALENCE AT CENTRAL PAHANG

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OBJECTIVES

To identify the epidemiology of Hepatitis C patients and the treatment outcomes in Central Pahang.

METHODOLOGY

Data were collected from hospital clinical electronic notes and were further analysed to obtain the demography, genotypes and treatment outcomes of hepatitis C patients who attended gastro clinic at Hospital Sultan Haji Ahmad Shah from 2011 till 2017.

RESULTS

A total of 75 patients with hepatitis C attended gastroenterology clinic at Hospital Sultan Haji Ahmad Shah from 2011 till 2017 of which 57 (76%) patients were male and 18 (24%) were female. Majority of the patients who attended our clinic were Malays (n=59, 78%) followed by Chinese (n=14, 19%) and Indians (n=2, 3%). Genotype 3 was the most common genotype (n=49, 65%), while genotype 1 (n=24, 32%) was the 2nd most common type and there were only 2 (3%) patients with genotype 4. Out of the 75 patients, 50 patients were started on Peg-Interferon alpha+ ribavirin, 25 patients were not started on treatment due to various reasons. 31 (62%) patients out of the 50 patients who were started on therapy achieved SVR 24 (genotype 3=21, genotype 1= 7, genotype 4= 2). Among the 25 patients who were not started on treatment, most of the patients (n=7, 28%) were not comfortable with complex treatment regime with pegylated interferon alpha and ribavirin. Majority of the patients who achieved SVR (n=20, 67%) had no liver cirrhosis.

DISCUSSION AND CONCLUSION

Treatment of hepatitis C remains a challenge for clinicians. Early detection and early initiation of therapy ensures a higher SVR rate.

AN EVALUATION OF ENDOSCOPIC FINDINGS AMONG GERIATRIC PATIENTS WITH ANEMIA AND CHRONIC KIDNEY DISEASE AT THE UKM MEDICAL CENTRE

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BACKGROUND

Elderly patients with chronic kidney disease (CKD) may demonstrate gastrointestinal lesions that contribute to anemia. Our aim is to investigate the prevalence of anemia-related GI lesion in this population and identify a decisive indicator to guide physicians on an approach for gastrointestinal work-up in an anemic elderly CKD patients.

METHODOLOGY

We prospectively studied patient age 60 years old and above with a background of CKD (Stage 3-5 including on Renal Replacement Therapy) and anemia. Demographic and laboratory data including hematological indices, iron panels and immuno-fecal occult blood test were collected. We utilized esophagogastroduodenoscopy, colonoscopy and double balloon endoscopy as a tool for endoscopic evaluation.

RESULTS

We studied 171 patients (97 males, 74 females, mean age 70.7). Of the patients 57.3% had anemia-related GI lesions detected from upper and lower endoscopy. Gastric ulcer (19.9%), duodenal ulcer (11.1%) and colonic polyp of less than 1.0cm in diameter (26.2%) were the commonest lesions identified from upper and lower endoscopy, respectively. A total of 14.0% of malignant and pre-malignant lesions were detected from the endoscopies. None of the parameters were found to be related to the lesions except ferritin below 100 ng/mL ($P=0.046$) and combination with transferrin saturation (TSAT) below 20% ($P=0.029$).

CONCLUSION

Anemia-related GI lesions are highly prevalent in elderly at various stages of CKD. Serum ferritin level and TSAT are useful indicators in determining anemia-related GI lesion in this population. The malignant and pre-malignant lesions are not uncommon amongst elderly with CKD. Thus, endoscopic evaluation should not be excluded as an integral part of anemia work up in elderly with CKD.

NORMATIVE CHICAGO 3.0 METRICS FOR HIGH-RESOLUTION ESOPHAGEAL MANOMETRY (INSIGHT ULTIMA®) IN HEALTHY MALAY POPULATION AND EFFECTS ON METRICS WITH DIFFERENT PROVOCATIVE SWALLOWS AND POSITIONS

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OBJECTIVE

Study of esophageal function has significant advancement with availability of high-resolution manometry (HRM). We aimed to determine normative metrics among healthy Malay volunteers and to evaluate effects of provocative swallows in various positions.

METHOD

We conducted a cross-sectional study of 50 healthy Malay adult volunteers using the InSIGHT Ultima® system (Diversatek, Highlands Ranch, USA). HRM metrics (95 percentile) were analyzed using the Chicago Classification version 3.0 following completion of swallowing protocols consisting of liquid, viscous and solid materials in recumbent and standing positions.

RESULTS

Normative metrics in the recumbent position for Integrated Relaxation Pressure (IRP) 4 s, Distal Contractile Integral (DCI), Distal Latency (DL) and length of peristaltic break (PB) were 17 mmHg (median 9, range 7 - 12), 2633 mmHg-s-cm (median 856, range 501 - 1525), 8.5 s (median 6.4, range 5.7 - 7.3) and 7 cm (median 2, range 0 - 3) respectively. Significant delay of DL was observed with viscous vs. liquid swallows (median 7.5s vs. 6.4s, $P < 0.01$). More distinctive changes in metrics were observed with solid materials vs. liquid swallows including increment of DCI (median 1098 vs. 856, $P < 0.05$), prolonged DL (median 8.2 vs. 6.4 s, $P < 0.01$) but shorter breaks (median 0 vs. 1.4 cm, $P < 0.01$). Shifting from recumbent to standing position caused a significant reduction in IRP 4 s (median 9 vs. 7 mmHg, $P < 0.05$) but not with other metrics. In standing position, a significant delay of DL was observed with solid vs. viscous swallows (median 8.0 vs. 7.5 s, $P < 0.01$).

CONCLUSION

We establish normative metrics for HRM with InSIGHT Ultima® system in the Malay population. Variations in metrics exist with different provocative swallows and positions. Normative parameters for different populations should be pursued if HRM studies are performed in these situations.

NORMATIVE VALUES FOR 24-HOURS AMBULATORY MULTICHANNEL INTRALUMINAL IMPEDANCE AND PH MONITORING (ZEPHR®) IN HEALTHY MALAY COHORT

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OBJECTIVE

24-hours ambulatory multichannel intraluminal impedance and pH (MII-pH) monitoring is increasingly available in Asia but normative data for Asians are lacking. We aimed to determine normative metrics for MII-pH monitoring in healthy Malay cohort.

METHOD

This was a cross-sectional study of 50 healthy Malay adults using the ZepHr® system (Diversatek, Highlands Ranch, USA). Normative metrics (95 percentile) and Johnson-DeMeester composition score were determined. Gastroesophageal refluxes were categorized into acidic, weakly acidic and weakly alkaline.

RESULTS

Normative Johnson-DeMeester score was 30 (median 3.9, interquartile range 1 - 6.7) and the upper threshold of frequency values for acidic, weakly acidic, weakly alkaline and total refluxes were 60, 43, 18 and 86 respectively. Comparison of reflux types and their frequencies in different population is shown in Table 1. In healthy Malays, refluxes were predominantly weakly acidic (n = 1517) but also higher occurrence of weakly alkaline refluxes (n = 203).

Table 1: Comparison of reflux types and their frequencies across different populations

		Malay	Chinese	Belgium-France	USA
Total Reflux, n	Median (IQR)	45.5 (35 – 70)	40 (31 – 53)	44 (25 – 58)	30 (16 – 45)
	95th Percentiles	86	75	75	73
Acidic reflux, n	Median (IQR)	17 (8 – 31)	22 (7 – 36)	22 (10 – 35)	18 (7 – 31)
	95th Percentiles	60.0	54	50	55
Weakly acidic reflux, n	Median (IQR)	20 (13 – 32)	16 (10 – 24)	11 (5 – 18)	9 (6 – 15)
	95th Percentiles	43	40	33	26
Weakly alkaline reflux, n	Median (IQR)	2 (0 – 4)	0 (0 – 1)	3 (1 – 7)	0 (0 – 0)
	95th Percentiles	18	4	15	1

IQR: interquartile range

CONCLUSION

We establish normative values for 24-hours ambulatory MII-pH monitoring with the ZepHr system in the Malay population.

GASTROINTESTINAL STROMAL TUMOUR-AN UNUSUAL CAUSE OF GASTROINTESTINAL BLEED

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INTRODUCTION

Gastrointestinal Stromal Tumours (GISTs) are rare and originate from the mesenchymal cells of the gastrointestinal tract. Patient with GISTs may remain asymptomatic or presents with complaints of abdominal pain, maleena, hematemesis, early satiety and palpable mass.

CASE

A 20-year old man presented with maleena associated with lethargy, giddiness and palpitations. He was pale on presentation but was otherwise hemodynamically stable. Laboratory investigation revealed iron deficiency anemia with hemoglobin of 9.9 g/dl and transferrin saturation of 9%.

Oesophagastroduodenoscopy(OGDS) and colonoscopy were unremarkable and did not reveal any source of bleeding. A video capsule endoscopy study was done and we found a submucosal lesion in the proximal jejunum with fresh blood. A computed tomography(CT) of the abdomen revealed an enhancing mass at doudeno-jejunal junction, measuring 3.3cmx 3.6cm 3.9 cm which had no clear fat plane with the body of pancreas. An endoscopic ultrasound was then done and confirmed the presence of a homogenous hypoechoic lesion adjacent to the neck of pancreas. There was a 10mm perilesional node. He then underwent laparotomy with doudeno-jejunal resection with feeding jejunostomy. Intraoperatively, a doudeno-jejunal junction submucosal tumour with central umbilication and ulceration was found and resected with end to side anastomosis. Histopathological examination of the tumour was consistent with GIST. The surgery was complicated with anastomotic leak which resulted in re-laparotomy, excision and re-anastomosis. He was subsequently discharged well.

DISCUSSION

Video capsule endoscopy aids in detection of small bowel neoplasm. CT remains the imaging of choice in GISTs in assessing margin, size, lymph node involvement, calcifications and distant metastases. Treatment of GISTs is mainly surgical resection. Imatinib is recommended as adjuvant or neoadjuvant therapy for GISTs that exhibit KIT mutation. Other alternative therapies include sunitinib and regorafenib.

SPONTANEOUS RESOLUTION OF A WALLED-OFF PANCREATIC NECROSIS VIA A CYST-DUODENAL FISTULA

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INTRODUCTION

Acute necrotizing pancreatitis confers high morbidity and mortality. Walled off pancreatic necrosis(WOPN) is the term used to define solid-cystic pancreatic collection occurring after 4 weeks from the onset of pancreatitis.

CASE

A 62-year old lady presented to our center with sudden onset pancreatic type abdominal pain. She had epigastric tenderness with tachypnea and tachycardia. Laboratory investigations showed elevated serum alanine transaminase and aspartate transaminase at 238u/l and 288u/l respectively with hyperbilirubinemia(117 μ mol/l). Her serum amylase was high at 914u/l. Chest radiograph showed bilateral pleural effusion. She was diagnosed as acute severe pancreatitis with APACHE II score of 9 and was ventilated in Intensive Care Unit for respiratory failure. Computed Tomography (CT) done on presentation revealed findings in keeping with acute necrotizing pancreatitis with peripancreatic free fluid. She showed clinical and biochemical improvement after 3 days and was subsequently extubated. She was discharged well.

Four weeks later, during clinic review, she complained of early satiety and abdominal fullness. Abdominal CT revealed 2 large communicating multiloculated peripancreatic collections measuring 4.6x 12.6x4.4 cm and 4.5x3.3x3.2 cm. She was planned for drainage of the collection. However, during oesophagogastroduodenoscopy(OGDS) prior to cystgastrostomy, an opening was visualized in the duodenal bulb with brownish fluid seen draining from it. Upon further questioning, patient had resolution of symptoms. A repeat CT revealed significant reduction of the peripancreatic collection with cyst-duodenal fistula and aerobilia. The resolving collection correlated with her clinical improvement. She has been well on follow-up and has undergone cholecystectomy.

DISCUSSION

Symptomatic WOPN requires intervention. Drainage of WOPN can be done via percutaneous, laparoscopy, open surgery and endoscopy methods. We present a case of spontaneous resolution of the WOPN by cyst-duodenal fistula.

MICROBIOLOGICAL CULTURE OF GASTROINTESTINAL ENDOSCOPES IN HOSPITAL QUEEN ELIZABETH (HQE), KOTA KINABALU, SABAH

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OBJECTIVE

Pertaining to the current emerging issues of the endoscope related infection, this study aims to estimate the prevalence of culture positive gastrointestinal (GI) endoscopes to ensure an adequate reprocessing in Endoscopy Unit, Hospital Queen Elizabeth (HQE).

METHODOLOGY

There were 14 gastroscopes, 8 colonoscopes and 7 duodenoscopes available in Endoscopy Unit. All were reprocessed using Automated Endoscope Reprocessing (AER) system with Paracetic acid 5% disinfectant after every endoscopic procedure. From May-July 2017, 102 GI endoscopes (34 for each type of scope) were randomly selected. Culture samplings were taken from two sites (endoscope tip and biopsy channel) via swabbing and flush-brush-flush method as recommended in Gastroenterological Nurses College of Australia (GENCA) guideline 2010. All samples were incubated aerobically and anaerobically.

RESULTS

Overall 98% of swabs from endoscope tip and flushing fluid samples from biopsy channel showed no growth. 2.9% (1/34) of gastroscopes had positive bacterial growth from tip and channel (*Micrococcus luteus* [<10 colony-forming units, CFU]) and 2.9% (1/34) of colonoscopes had positive fungal growth from both culture sites (*Aspergillus flavus* [<10 cfu]). No growth recorded from duodenoscopes.

DISCUSSION

The storage times of the culture positive gastroscopes and colonoscopes prior to culture were less than 72 hours as recommended in GENCA guideline. Both culture positive endoscopes were less than 1 year old. Presence of insignificant amounts of *Micrococcus luteus* in the culture positive gastroscopes was interpreted as skin contamination and no further action was taken.

CONCLUSION

In this preliminary study using 102 GI endoscopes, the microbiological culture results showed no growth of any high-concern organism. Despite regular surveillance microbiological culture of endoscopes, strict adherence to latest cleaning and disinfection guideline should be practiced continuously to avoid cross contamination of GI endoscopes.

UTILITY OF AZATHIOPRINE METABOLITES MEASUREMENT IN THE MANAGEMENT OF INFLAMMATORY BOWEL DISEASES: UKM MEDICAL CENTRE EXPERIENCE

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BACKGROUND

Inflammatory bowel disease (IBD) is an idiopathic chronic inflammatory condition consists of Ulcerative Colitis (UC) and Crohn's disease (CD). Azathiopurine (AZA) is used in disease remission. Measuring AZA metabolites level; 6-thioguanine nucleotide (6-TGN) and 6-methyl mercaptopurine (6-MMP) are useful in guiding thiopurine therapy for IBD patients. We aimed to determine correlation between AZA metabolites with disease activity and used it to guide clinical strategies

METHODS

A cross sectional study was conducted on, on stable doses AZA using AZA metabolites levels and interpret based on a metabolite-directed algorithm. Harvey Bradshaw index (HBI) score were used to assess pre and post clinical strategies.

RESULTS

Forty IBD patients were recruited [16 UC, 24 CD; 25 males, 15 females) with median of 13 (11.25-24.00) months on AZA stable dose of 1.70(mg/kg/day) (1.31-2.07). The median metabolites 6-TGN and 6-MMP levels were 250.50(228.50-419.50) and 1127(922.25-1459.00) pmol/8x10⁸ RBC respectively with HBI activity score of 5.5(4-8). 6-TGN level showed negative correlation with HBI score ($r=-0.5$, $p=0.001$) and high median 6-TGN levels in remission (301.56 (IQR;246-847pmol/8 x 10⁸ RBC; $p=0.012$). There was no correlation between 6-MMP with HBI score. Metabolite pattern showed 20 patients were in appropriate dose with clinical strategies; (16 maintain dose; 4 switch to biologics), 12 patients under-dosed (7 increase dose, 4 maintain dose and 1 switch to biologics) and 8 patients were thiopurine refractory or overdose (3 reduce dose, 4 maintain dose, 1 switch to biologics) but none was thiopurine resistant or non-compliant. HBI score showed remission improved from 18 to 30 patients. ($p=0.009$)

CONCLUSIONS

Utilizing the thiopurine metabolites, in particular 6-TGN, is useful in providing information to guide clinical strategies in optimising management in IBD.

ACUTE LIVER FAILURE IN MALAYSIA: ANALYSIS OF 167 CASES

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BACKGROUND

Acute liver failure is an emergency and potentially fatal rapid onset liver dysfunction without prior liver disease.

AIMS

To study the clinical profile of ALF with relation to demographics, etiology and outcome in a single tertiary liver centre.

METHODS

We carried out a retrospective observational study collecting demographic, clinical, laboratory, and short-term outcome data on adult patients diagnosed as ALF between 2001 and March 2017. Data was retrieved from electrical medical records.

RESULTS

167 adults were diagnosed with ALF with male 57(34.1%); female 110(65.9%). The mean age of presentation was 36.3 years old. The causes of ALF included viral infection (hepatitis B 38(22.8%); HAV 2(1.2%); Dengue 6(3.6%)), drug induced 37(22.2%); metabolic (Wilson 7; fatty liver 10) (10.2%); autoimmune induced 16(9.6%); ischemic 2(1.2%); paracetamol 13(7.8%); alcoholic 3(1.8%); indeterminate 33(19.8%). 33 patients refused liver biopsy culminating the indeterminate results. All the subjects were jaundice (mean bilirubin 355.7) and had encephalopathy (grade 1 and 2 was 81(48.5%); grade 3 and 4 was 86 (51.5%). Of the complications, 28 (16.8%) had cerebral edema; 29 (17.4%) acute kidney injury; 39(23.4%) with infection; 25 (15.0%) complicated with gastrointestinal bleeding. Upon diagnosis, the mean serum arterial ammonia was 145.8; bilirubin of 355.7; INR of 4.5; creatinine 116.8. MELD score was statistically significantly lower in survivors (mean 25) than non-survivors (mean 32). Of the 167 patients with ALF, 118 died without LT (70.7%), 1 died post-transplant (0.6%) and 44 survived without LT (26.3%) and 4 survived with LT (2.4%). The transplant-free survival rate was 26.3% (44/167). ALF secondary to hepatitis B (4/38 was alive) fared worst compared to DILI (12/37 was alive).

CONCLUSION

ALF with liver transplant had favorable survival. Drug induced and Hepatitis B account for the most common aetiology of ALF in Malaysia.

ANALYSIS ON LIVER TRANSPLANTATION IN MALAYSIA – 15 YEARS SINGLE CENTRE EXPERIENCE

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BACKGROUND

Liver transplantation (LT) was advocated as a salvage treatment of choice for patients with acute and end stage liver disease. Our transplant program was started in 2002 and there were 83 transplants cases up till March 2017.

AIMS

Primary objective is to study the demographic features of transplanted patients in Selayang Hospital and to see the 1 month and 6 months survival.

METHODS

Retrospective study looking at records of transplanted patients in Selayang Hospital starting in 2002 till March 2017. Data was retrieved from electrical medical records.

RESULTS

There were 43 male cases (51.8 %) and 40 female (48.2%). Ethnicity includes Malay=38, (45.8%), Chinese=30 (36.1%), Indian=13 (15.7%) and others=2 (2.4%) (Kadazan and Iban). Out of 83 cases, 65 (68,3%) were deceased donor liver transplantation, and remaining 18 cases (21.7%) were living related liver transplant (father = 10 (55.5%), mother=7 (38.9%), uncle=1 (5.6%). The youngest and eldest age was 11 months and 63 years old respectively with mean of 19.8 years. The blood groups were blood group A=29 (34.9%), blood group B = 21 (25.3 %) , O=29 (34.9%) and AB=4 (4.8%). Aetiology includes – Biliary Atresia accounted for 34 cases (41 %), metabolic= 10 cases (12%), cholestasis=8 cases (9.6%), Primary Biliary Cholangitis =2 cases (2.4%), Autoimmune hepatitis=5 cases (6%), vascular=2 cases(2.4%) hepatocellular carcinoma=4 cases (4.8%), acute liver failure=8 cases (9.6 %), hepatolithiasis=4 cases (4.8%), and 6 cases (7.2%) were cryptogenic / idiopathic. One month post liver transplant survival rate is 83.3 % and six months survival rate is 79.%. Sepsis with multiorgan failure accounted for most cause of death within 6 months post operatively (71.4 %).

CONCLUSION

Although Malaysia is one of the lowest organ donation rate, our Liver transplant program has shown good outcome.

CONCLUSIONS

ALF with liver transplant had favorable survival.

AN UNCOMMON PRIMARY DUODENAL ADENOCARCINOMA IN PATIENT WITH GASTRIC OUTLET OBSTRUCTION SYMPTOMS. A CASE REPORT AND LITERATURE REVIEW

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Malignant tumors of the small intestine are rare with a global incidence of less than 1.0 per 100 000 population. In the United States, small bowel cancer account for only 0.42% of total cancer cases and 2.3% of cancers of digestive system. There are around 40 different histological subtypes of small intestinal cancers. The most common types are adenocarcinoma, lymphoma, sarcoma and carcinoid tumor. While small bowel adenocarcinoma account for 30-40% of small bowel cancers, which are 4% - 5% of all tumors of the gastrointestinal bowel, the percentage is much lower than proportion in the colon where the majority is adenocarcinomas. Here we reported a case of 54 year old Malaysian Gentleman who was presented with epigastric pain for 1 month duration associated with epigastric fullness, indigestion and vomiting. He had significant weight loss for almost 15kg over a month. An initial Upper Gastrointestinal Endoscopy showed multiple Forrest III ulcers at D1 with no gastric or duodenal mass. Patient was planned for a repeat endoscopy in 1 month, however he presented again after 1 month with worsening of gastric outlet obstruction symptoms and progressive weight loss. Subsequent endoscopy showed duodenal mass at D3 and D4 with narrow lumen. Contrasted CT Abdomen and Pelvis showed a circumferential duodenal mass about 7.3cmW x 5.5cmAP x 6.1cm CC with enhanced papillary projection seen into the lumen. Biopsy findings were compatible with Duodenal Adenocarcinoma. Primitive neoplasia of duodenum is very rare. Upper Gastrointestinal Endoscopy and biopsy is the diagnostic gold standard. The most common areas are the III and IV portion of duodenum. As the presenting symptoms and signs are usually vague and not specific, the diagnosis is often delayed.

ANALYSIS OF LIVER CIRRHOSIS CASES AT THE UKM MEDICAL CENTRE

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OBJECTIVE

The incidence of liver cirrhosis has been increasing in Malaysia. We aim to analyze the aetiologies and complications related to liver cirrhosis at the UKM Medical Centre.

METHOD

A retrospective analysis of patients diagnosed with liver cirrhosis between 1985 and 2016 was conducted and details of demographic along with aetiologies and complications of liver cirrhosis were recorded.

RESULTS

A total of 300 patients; 191(63.7%) male and 109 (36.3%) female were analyzed. There were 164(54.3%) Chinese, 116(39.3%) Malay and 20 (6.4%) Indian patients with mean age at diagnosis of 62.2 years. The aetiologies of liver cirrhosis include chronic hepatitis B (CHB) 127(42.3%), chronic hepatitis C (CHC) 41(13.7%), non-alcoholic steatohepatitis (NASH) 43(4.7%), alcoholic liver disease 14(4.7%), cryptogenic 14(4.7%), autoimmune hepatitis 10(3.3%) and others 11(3.7%) which comprised of primary biliary cholangitis (PBC), sarcoidosis, congenital and drug-induced liver disease. The complications of liver cirrhosis; esophageal varices, 92(41.1%) ascites 64 (28.8%) spontaneous bacterial peritonitis 25(11.3%), sepsis, 26 (11.7%) and hepatic encephalopathy 15(6.8%). For CHB patients, 70(45.5%) were treated with entecavir 47(30.5%) tenofovir 11(7.1%) telbivudine and 2(1.3%) with interferon. For CHC patients, 29(52.7%) were treated with pegylated interferon/ribavirin, and only 1(1.8%) treated with direct acting antiviral agent. Hepatocellular carcinoma (HCC) was identified in 45 out of 300 liver cirrhosis patients and the risk factors were CHB 26(57.8%), CHC 10(22.2%), NASH 6(13.4%), cryptogenic 2(4.4%), and PBC 1(2.2%). Treatment delivered for HCC included transarterial chemoembolization in 12 (26.7%), radio-frequency ablation 9(20.0%), surgery 5(11.1%), sorafenib 3(6.7%) and palliative 6(13.3%).

CONCLUSION

The commonest aetiology of liver cirrhosis is chronic hepatitis B infection dominated by male Chinese patients and esophageal varix is the main complication. Liver cirrhosis-related cancer, hepatocellular carcinoma is also dominated by male Chinese patients with chronic hepatitis B.

Key Words: Liver Cirrhosis, Chronic hepatitis B, Hepatocellular carcinoma, Chinese.

CLINICAL CHARACTERISTICS, PATTERNS AND TRENDS OF COLORECTAL CANCER CASES: A FIFTEEN-YEAR ANALYSIS FOR THE YOUNG, MIDDLE AGE AND ELDERLY PATIENTS AT THE UKM MEDICAL CENTRE

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INTRODUCTION

Colorectal cancer (CRC) cases are increasing in Malaysia. We aim to analyze clinical characteristics, patterns and trends of CRC cases at UKM Medical Centre.

METHOD

Retrospective analysis of CRC cases from January 2000 to December 2015 was conducted. Demographic details (age ranged of less than 50 (<50), 50-70 and more than 70 (>70) years old), anatomical location, pathological subtype, stage and grade of CRC cases were recorded.

RESULT

632 patients; 372 (58.1%) males, 260 (41.1%) females, mean age of 60.8 years old; Chinese (55.5%), Malays (39.7%) and Indians (4.8%). There were 17.2% patients <50, 61.4% patients between 51–70 and 21.4% >70 years old. There were 61.5% males and 38.5% females for <50 years, 57.7% males and 42.3% females for 50-70 years and 60% males and 40% females for >70 years old. Malays were significantly higher for < 50 years old at 52.3% compared to only 37.0% in older groups ($p < 0.05$). For age ranged <50, 51-70 and >70; there were 86.2%, 86.1% and 86.7% distal CRC and 13.8%, 13.9% and 13.3% proximal CRC cases respectively. As for staging, 7.8%, 36.7%, 42.4% and 13.1% cases for Dukes A, B, C and D respectively. Pathologically, adenocarcinoma, mucinous adenocarcinoma and signet cell comprised of 92.6%, 5.8% and 1.6% respectively with 61.6% well, 32.3% moderately and 6.1% poorly differentiated CRC. For < 50 years old; there is a significant increasing trend of CRC within 15 years; 14.7% for 2000-2005, 33% for 2006-2010 and 52.3% for 2010-2015. For >70 years old; there is a significant increasing trend of CRC within 15 years; 22.4% for 2000-2005, 15.1% for 2006-2010 and 23.9% for 2010-2015.

CONCLUSION

Chinese males at the middle and older age and Malay males at young age groups were highest to have distal CRC which predominantly Dukes B and C. There is a significant increasing trend of CRC cases among the young Malays of less than 50 years old and the elderly in Malaysia.

A CURIOUS CASE OF ASCITES: A CASE REPORT OF BUDD CHIARI SYNDROME

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Budd Chiari syndrome (BCS) refers to a heterogenous group of conditions presenting with hepatic venous outflow obstruction. Classical clinical features of Budd Chiari syndrome includes fever, ascites, abdominal pain, pedal oedema, hepatic encephalopathy and gastrointestinal bleeding. The use of imaging modalities such as hepatic Doppler ultrasound and venography to demonstrate the hepatic venous outflow obstruction are essential in establishing the diagnosis. The authors report a case of a 38 year-old lady who was previously well and sought medical care for ascites. However the cause of her ascites was not identified despite extensive investigation, and even imaging findings yielded inconclusive evidence of Budd Chiari syndrome. Finally Budd Chiari syndrome was diagnosed based on histopathological examination of her liver biopsy, after almost 4 months from the first presentation.

This case report highlights the importance of knowledge of Budd Chiari syndrome and maintaining a high index of suspicion when managing a patient with ascites, with or without other typical features of acute or chronic liver disease.

INTRODUCTION

Budd Chiari syndrome (BCS) is an eponym used to refer to a heterogenous group of conditions presenting with hepatic venous outflow obstruction. This term can be used irrespective of the mechanism or level of obstruction of the hepatic venous outflow.[1]

CASE REPORT

A 38 years old Indian lady, who was previously healthy, first presented to our hospital with abdominal distension and discomfort of 3 months' duration. Physical examination revealed gross ascites and a small submental lymph node. There was no stigmata of chronic liver disease on examination. Initial investigations revealed a high serum-ascitic albumin gradient (SAAG). The peritoneal fluid was straw-colored; there were no malignant cells seen on cytology and there was no growth from the culture of the peritoneal fluid. Blood tests including renal profile, liver function test, coagulation profile, thyroid function test and autoimmune profile were within normal range. There was no evidence of proteinuria. Echocardiography was done and no abnormal finding was found. Ultrasonography of abdomen followed by a plain computed tomography (CT) liver were performed, which showed gross ascites with no evidence of intra-abdominal mass or liver cirrhosis.

We performed a thorough assessment for underlying malignancy for this patient, however both oesophagogastroduodenoscopy (OGDS) and colonoscopy were normal. The submental lymph node detected earlier was biopsied - only reactive changes were found. A gynecology assessment and ultrasonography was done and it revealed no abnormalities. At this point of time, we have scheduled a contrasted CT thorax, abdomen and pelvis for her and decided to continue our workup in a outpatient setting.

Shortly after being discharged, the patient presented to the hospital again with two-day history of fever and vomiting. She deteriorated shortly after being admitted, with reduced conscious level and marked tachycardia. She was intubated and subsequently managed in the intensive care unit (ICU) setting. A Doppler ultrasonography was done and the hepatic veins and IVC were deemed to be patent at the time. Peritoneal tapping was done- this time a low SAAG of 10 was detected and cell count was zero. She was septic but her condition responded rapidly with broad-spectrum antibiotic. Peritoneal culture grew *Salmonella* spp, which was sensitive to Ceftriaxone. The antibiotic was de-escalated according to the sensitivity and she was treated with the antibiotic for a total of 14 days. Subsequent recovery in the ward was complicated with recurrent symptomatic ascites requiring frequent therapeutic peritoneal tapping.

A CT of thorax, abdomen and pelvis was done and found hepatic congestion with gross ascites, as well as compressed intrahepatic IVC and small caliber intrahepatic veins. However there was no filling defect seen in those veins. The possibility of Budd Chiari syndrome was suggested by the radiologist and the said CT was sent to be reviewed for second opinion by another radiologist at a liver transplant center - the conclusion was that there was no definite evidence of Budd Chiari syndrome. However, a transjugular liver biopsy was recommended for further assessment.

- A transjugular liver biopsy was done and revealed:

Unfortunately she succumbed to her illness right after the diagnosis of Budd Chiari syndrome was established, but before initiation of treatment or completion of workup for underlying causes.

In summary, this 38 years old lady first sought medical care for ascites, which was later complicated with Salmonella peritonitis. The cause of her ascites was not identified despite extensive investigation, and even imaging findings yielded inconclusive evidence of Budd Chiari syndrome. Finally Budd Chiari syndrome was diagnosed based on histopathological examination of her liver biopsy, after almost 4 months from the first presentation, though it was not in time for commencement of treatment.

DISCUSSION

The term “primary” BCS is used when BCS is thought to occur due to primarily a venous disease (i.e phlebitis or thrombosis). [1] Myeloproliferative disorders are one of the main factors contributing to primary BCS, followed by antiphospholipid syndrome, paroxysmal nocturnal hemoglobinuria, Behcet’s disease. It may also occur in patients with factor V Leiden mutation, factor II mutation, protein C or protein S deficiency, as well as antithrombin deficiency.[2, 3] On the other hand, the term “secondary” BCS may be used to describe BCS due to external compression or invasion by a lesion adjacent to the blood vessel.[1]

Classical clinical features of BCS includes fever, ascites, abdominal pain, pedal oedema, hepatic encephalopathy and gastrointestinal bleeding. However, the presenting features among patients with BCS may vary from asymptomatic to acute liver failure.[4] In the patient described above, for example, the only presenting feature is ascites. Up to 20% of the patients with BCS were asymptomatic, and it is associated with large collateral blood supply of the hepatic vein. The laboratory profile in BCS is non-specific as well, adding up to the diagnostic challenge of this condition.

Imaging examinations are essential for the diagnosis of BCS, with X-ray venography being the gold standard for the evaluation and diagnosis of a patient with suspected BCS.[1] Table 1 highlights the typical findings seen in venography. Another method of examination is sonography, and this non-invasive method is thought to correlate well with pathological examination as well as venography findings. Features specific for BCS on Doppler ultrasonography are presented in table 2. Caudate lobe hypertrophy and macroregenerative nodules may also be present in a patient with BCS.

The patient described in our case report had a patent hepatic vein and IVC on Doppler ultrasonography. Her CT, on the other hand, shows features of a compressed intrahepatic IVC and small caliber intrahepatic veins- though ultimately not conclusive of Budd Chiari syndrome despite consulting two radiologists.

Liver biopsy is not necessary for the diagnosis of BCS. However it can be helpful if imaging examinations does not establish the diagnosis of BCS, such as the patient in our case report. Histopathological examination may reveal liver cell loss, congestion and centrilobular fibrosis, which are indirect findings of hepatic venous outflow obstruction. Other features such as macroregenerative nodules and nodular regenerative hyperplasia may also be present in a patient with longstanding BCS. [1]

Once the diagnosis is confirmed, anticoagulation therapy should be initiated and continued lifelong, besides addressing the underlying risk factors for thrombosis.[1, 5] Percutaneous angioplasty and stenting can be done if the venous obstruction is deemed amenable to the treatment. TIPS insertion can also be considered if there is no ongoing improvement with the standard anticoagulant therapy. A patient with BCS who have failed TIPS insertion or responded poorly despite TIPS insertion, along with patients who presented with fulminant hepatitis, should be considered for liver transplantation.[1]

An overall 5-year survival rate of 80% has been reported in patients with Budd Chiari syndrome who have been treated. However, the natural history of this disease is still poorly known due to the lack of cohort study of patients who are untreated.

CONCLUSION

This case report highlights the importance of knowledge of BCS - from its varied presentation to the methods of diagnosis of condition, as it can be a challenging diagnosis to establish. It is critical for physicians to maintain a high index of suspicion when managing a patient presenting with ascites, with or without other features of acute or chronic liver disease, so that effective treatment can be administered early.

Table 1 - Features of BCS on venography[1]

- Fine “spider-web” network pattern without filling of venous radicals
- Coarse network of collateral veins which arch outward from catheter tip and then come together again near the site of entry of hepatic vein to the inferior vena cava
- A patent vein upstream from a stricture

Table 2 - Features of BCS on Doppler ultrasonography[1]

- A large hepatic vein with absent flow signal, or with a reversed, or turbulent flow
- Large intrahepatic or subcapsular collaterals with continuous flow connecting the hepatic veins or the diaphragmatic or intercostal veins
- A spider-web appearance in the vicinity of hepatic vein ostia, together with the absence of normal hepatic vein in the area
- An absent or flat hepatic vein waveform without fluttering
- A hyperechoic cord replacing a normal vein

Figure 1. Abdominal CT

- intrahepatic IVC appear compressed and slit-like but opacified
- small caliber intrahepatic veins
- no obvious filling defect seen within intrahepatic IVC and the small intrahepatic veins
- Superior vena cava and proxi, al part of infrahepatic IVC are patent
- Portal vein is patent and normal in caliber

Figure 2. Histopathological examination of liver biopsy. Centrilobular necrosis seen.

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CHARACTERISTICS OF PATIENTS WITH HEPATITIS B AND HEPATITIS C IN HOSPITAL TENGKU AMPUAN RAHIMAH KLANG

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OBJECTIVE

To characterize patients with hepatitis B and hepatitis C in the local community.

METHODOLOGY

Retrospective review of medical records of patients in the Hepatology clinic of Tengku Ampuan Rahimah Hospital from March 2016 to April 2017.

RESULTS

There are 108 patients with chronic hepatitis B, of which 64% of them (n=69) are male and the mean age was 48.6 years old. Less than half of the patients with CHB required treatment (n=42, 38.9%). The most common antiviral used is entecavir (n=24, 57%), followed by tenofovir (n=15, 35.7%). There are 27 patients with hepatitis C. The mean age for this group is 49.9 years old and most of them are male (n=22, 78.6%). Only 4 patients had their genotype identified – 3 patients with genotype 1a (75%) and 1 patient with genotype 3a (25%). Treatment of these 4 patients with pegylated interferon and ribavirin resulted in sustained virologic response (SVR). Up to 40.7% (n=11) of the patients with hepatitis C developed liver cirrhosis, while 14.8% (n=16) progressed into cirrhosis among patients with hepatitis B. HCC was reported in 2.8% (n=3) chronic hepatitis B patients and 3.5% (n=1) in hepatitis C patients.

DISCUSSION AND CONCLUSION

Despite availability of effective treatment for hepatitis B and hepatitis C, cirrhosis and HCC remain a significant threat to these groups of patients; vigilant screening efforts should be continued.

A RETROSPECTIVE STUDY OF THE OUTCOME OF THE PATIENTS DIAGNOSED WITH ACUTE PANCREATITIS BASED ON BEDSIDE INDEX FOR SEVERITY IN ACUTE PANCREATITIS SCORE

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OBJECTIVE

Evaluate the severity of acute pancreatitis (AP), length of hospitalization and mortality in AP patients in relationship to Bedside Index for Severity In Acute Pancreatitis (BISAP) score.

METHODOLOGY

Retrospective analysis of clinical data of consecutive patients admitted to gastroenterology ward Hospital Queen Elizabeth with the diagnosis of AP from 1 October 2016 to 31 April 2017. Demographic data and BISAP score at first 24 hours were recorded. The Severity of AP (based on revised Atlanta criteria 2012), length of hospital stay and mortality were evaluated in relationship to the BISAP score. The sensitivity, specificity and likelihood ratios for BISAP score were calculated

RESULTS

There were 31 AP patients (mean age 48.5 ± 17.44 , 67.7% female), of which 25 (80.6%) with BISAP score <2 and 6 (19.4%) with BISAP score ≥ 2 . The median length of hospitalization were 4 days for patients with BISAP score <2 and 14 days for patients with BISAP score ≥ 2 ($p=0.001$). There was one (4%) patient with BISAP score <2 had moderately severe pancreatitis, whereas 4 (66.7%) patients with BISAP score ≥ 2 had moderately severe and severe pancreatitis ($p=0.002$). There was a patient with BISAP score ≥ 2 who had severe AP who died but there was no mortality in the group of patients with BISAP score <2 ($p=0.194$). The sensitivity of a BISAP score ≥ 2 for moderately severe and severe pancreatitis was 80% (95% CI, 28.3%-99.5%), with a specificity of 92.3% (95% CI, 74.8%-99%). The positive and negative likelihood ratios were 10.4 (95% CI, 2.56-42.45) and 0.22 (95% CI, 0.04-1.26), respectively.

CONCLUSION

AP patients with BISAP score ≥ 2 were significantly associated with longer hospitalization, moderately severe and severe pancreatitis. The BISAP score appeared to be a reliable tool to identify AP patients at high risk of developing moderately severe and severe pancreatitis in our study population.

RETROSPECTIVE AUDIT OF ADHERENCE OF UPPER GASTROINTESTINAL ENDOSCOPY (OGDS) TO PERFORMANCE MEASURES INTRODUCED BY EUROPEAN SOCIETY OF GASTROINTESTINAL ENDOSCOPY(ESGE) QUALITY IMPROVEMENT INITIATIVE IN HOSPITAL LABUAN

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OBJECTIVE

To measure the degree of adherence of Labuan endoscopy practices with the newly introduced OGDS Performance Measures by ESGE Quality Improvement Initiative.

METHODOLOGY

Diagnostic and intervention endoscopies performed from 24 March 2017 till 7 July 2017 was retrieved from Operating Theatre (OT) records and reviewed.

RESULTS

A total of 44 patients met study criteria. Key Performance (KP) measures pre-procedure for proportion of patients with proper instructions for fasting was 97.73% (n=43, t≥95%). Completeness of procedure for proportion of reports stating procedure time 0% (n=0, t≥90%) and proportion with accurate photo documentation were not measured for this study. Identification of pathology for proportion of reports with standardized terminology 100% (n=44, t≥90%) and Minor Performance (MP) measuring inspection time in the stomach 0% (n=0, t≥90%), inspection time in Barrett's Oesophagus 0% (n=0, t≥90%), and Lugol's staining in the oesophagus for patients at risk of SCC 0% (n=0, t≥90%). Management of Pathology using Seattle biopsy protocol in Barrett's 0% (n=0, t≥90%), for proportion using a biopsy protocol according MAPS guidelines 0% (n=0, t≥90%). Complications for proportion with registration of complications after therapeutic procedure 0% (n=0, t≥90%).

DISCUSSION

Emergency OGDS and language barriers with no translators were identified for lack of fasting. Procedure start time is recorded in the OT checklist, but not for endoscopy report performed in ICU or Endoscopy suite. Photo documentation were not measured due to brief period of printer breakdown. Standardised terminologies were used in all reports, however there were instances where grading were found to be inaccurate. We previously practised 4-Quadrant biopsy protocol for Barrett's and other suspected malignancies, and now would update our practice to Seattle Protocol and MAPS Guideline accordingly.

CONCLUSION

This achieved its primary objective and revealed significant areas of improvement in the provision of our OGDS services. The key issues identified here would be rectified and presented in the follow-up audit cycle.

RETROSPECTIVE AUDIT OF COMPLICATION RATES FOLLOWING UPPER GASTROINTESTINAL ENDOSCOPY (OGDS) PERFORMED BY JUNIOR ENDOSCOPIST IN HOSPITAL LABUAN

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OBJECTIVE

To measure the complication rate of OGDS performed by Medical Junior Endoscopist with minimal endoscopy training.

METHODOLOGY

Diagnostic and intervention endoscopies performed from 24 March 2017 till 7 July 2017 was retrieved from Operating Theatre (OT) records and reviewed.

RESULTS

A total of 50 patients met study criteria. The procedure was performed at OT 96% (n=48) and Intensive Care Unit 4% (n=2). The indication were gastritis 36.54% (n=19), epigastric pain 15.38% (n=8), oesophageal varices surveillance 15.38% (n=8), dyspepsia 7.69% (n=4), upper gastrointestinal bleeding 7.69% (n=4), not stated 5.77% (n=3), iron deficiency anaemia 3.85% (n=2), suspected malignancy 3.85% (n=2), reassessment of Barrett's 1.92% (n=1) and persistent nausea 1.92% (n=1). Complication rate was patient unarousable 2% (n=1). No perforation or death has resulted due to procedure.

DISCUSSION

In our setting, endoscopy is performed by junior endoscopist unsupervised for logistic reasons. Although most cases were elective in nature, the nearest endoscopy unit was approximately 5 hours away requiring sea and land or air travel. Patient safety was addressed by standard OT checklist and pre-procedure optimisation. Endoscopist insight into limitations and conservative approach towards procedures minimised complication and mortality rates. We do not practice procedure under sedation as it restricts examination time, causes significant discomfort and often results in patient refusing repeat procedure. Administration of supplemental oxygen, intra and post procedure monitoring of vital signs and ensuring patient fully awake prior to transfer addresses safety risk associated with sedation and analgesia. An additional safety net is provided by means of surgical team.

CONCLUSION

Diagnostic and intervention endoscopy performed by junior endoscopist with minimal training and without supervision appear to be safe as demonstrated by this study. Pre-procedural optimisation, adherence to safety protocol and recognition of operator limitations minimise patient safety risks. An audit with better power is required to confirm our findings.

PROPOSAL FOR UPDATE AND STANDARDISATION OF UPPER GASTROINTESTINAL ENDOSCOPY (OGDS) REPORTING ADAPTED FROM PERFORMANCE MEASURES INTRODUCED BY EUROPEAN SOCIETY OF GASTROINTESTINAL ENDOSCOPY(ESGE)

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OBJECTIVE

To introduce an updated form for manual OGDS reporting in Malaysia for the purpose of standardised reporting, patient safety and audit tool.

METHODOLOGY

Diagnostic and intervention endoscopies performed from 24 March 2017 till 7 July 2017 was retrieved from Operating Theatre (OT) records and reviewed.

Results: A total of 44 patients met study criteria. Pre-procedure instructions for fasting were extrapolated from endoscopic finding of food particles 97.73% (n=43,t≥95%). Completeness of procedure and identification of pathology could not be adequately assessed due to inadequacies of current reporting. Indications for procedure were not stated 6.82% (n=3), urgency was not recorded in 100%, local anaesthetic administration was not recorded in 100% (n=44), sedation administration was not stated on 45.45% (n=20), analgesia administration was not stated on 45.45% (n=20), Z-line was not recorded in 34.09% (n=15). Rapid Urease Test results were not recorded in 43.18% (n=19).

DISCUSSION

Depending on the endoscopy centre and discipline, reporting for endoscopy vary greatly. Medical endoscopy units use Malaysian Gastro-Intestinal Registry (MGIR) whereas others use old report form, stamp or just document findings in case notes. In addition to performance measures introduced by ESGE, current reporting methods severely lack important information such as procedure time, duration, drugs administered, complications and post-procedure information. Furthermore present reporting format do not capture data that can be used for performance and safety audit. Our newly proposed reporting form aims to address these issues. However the new form also introduces visual cues for reporting personnel (endoscopist or medical officer) to encourage use of standardised terminologies and encourage reporting of relevant positive and negative findings in order to improve the quality of reporting.

CONCLUSION

This study has identified several key areas for improvement in OGDS reporting that are reflective of current endoscopy practices in Malaysia. The proposed reporting form would address these issues.

EFFICACY, SAFETY AND COST-EFFECTIVENESS OF GENERIC TENOFOVIR DISOPROXIL FUMARATE FOR USE IN PATIENTS WITH CHRONIC HEPATITIS B(CHB): LABUAN REAL WORLD EXPERIENCE

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OBJECTIVE

To measure evaluate the treatment outcomes of Labuan patients on Generic Tenofovir Disoproxil Fumarate (Tenofovir) for the treatment of CHB.

METHODOLOGY

Patients who are on active treatment were retrieved from the Pharmacy Information System (PhIS). Patient lab results were retrieved from Laboratory Information System. All results were tabulated and reviewed.

RESULTS

A total of 14 patients met the study criteria. Patients are categorised into treatment naïve 35.71%(n=5) and experienced 64.29%(n=9). Pre-treatment HBV DNA was detected in 71.43%(n=10), not detected 7.14%(n=1), pending 7.14%(n=1), not done 7.14%(n=1) and rejected 7.14%(n=1). Hepatitis B s-Antigen was Reactive in 78.57%(n=11), non-reactive 14.29%(n=2) and not available 7.14%(n=1). Hepatitis B e-Antigen was Reactive in 35.71%(n=5), non-reactive 50.00%(n=7) and not available 14.29%(n=2). Serum ALT was Elevated in 57.14%(n=8) and normal in 42.86%(n=6). Post-treatment Serum ALT was Elevated in 21.43%(n=3) and normal in 78.57%(n=11). Post-Treatment HBV DNA Detected 12.50%(n=2) and Not Detected in 18.75%(n=3).

DISCUSSION

We had to remove exclusion criteria due to limited patient population. The study includes both treatment naïve and patients with previous exposure to Lamivudine or Telbivudine. Patients were switched over to Tenofovir due to development of resistance, virological breakthrough, side effects or comorbid illness. We unfortunately rely on Serum Transaminase as surrogate for treatment response as there is often significant delays in obtaining repeat outsourced HBV DNA results. In cases with persistent transaminitis, it was cause by alcoholic cirrhosis and significantly improving albeit still high levels of transaminase. Only 1 case had very low detectable virus levels with persistent transaminitis, and but no resistance detected. The patient is still under investigation.

CONCLUSION

The Generic Tenofovir in use currently appears efficacious with response rate of 78.57%, safe and cost-effective in comparison with the registration trial. It is effective in both treatment naïve and experienced patients and very well tolerated in our study.

LIVER TRANSPLANTATION IN ACUTE LIVER FAILURE AT SELAYANG HOSPITAL A TERTIARY REFERRAL CENTRE FROM 2004 - 2016

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INTRODUCTION

Acute liver failure is an abrupt onset of fulminant liver dysfunction culminating the hepatic encephalopathy and state of coagulopathy with international normalized ratio of more than 1.5 in a patient without cirrhosis or pre-existing liver disease. Liver transplantation has improved the survival in patient with acute liver failure which used to be 25%. We reviewed our ALF patients receiving liver grafts.

OBJECTIVE

To learn the liver transplants demographic, indications, and survival rate.

METHODS

We conducted a retrospective review of all patients who developed definite acute liver failure and received liver graft in the period 2004 till 2016. There were 8 patients identified and analyzed for baseline data and outcome.

RESULTS

Out of 82 liver transplants performed in our centre, 8 patients (4 females, 4 males) had acute liver failure. They had a median age of 25 years old and median MELD score of 32.5. All patients except one received cadaveric liver. The median time from time on list to liver transplantation was 3.5 days. None of them had comorbidities except one whom had treated pulmonary tuberculosis. In hospital mortality was 25.0%. There were 75.0% transplant recipients reached one year survival.

CONCLUSION

Liver transplantation remains the promising treatment modality for acute liver failure. Drug induced hepatitis remained the most common cause for acute liver failure in our centre. High mortality is noted within first 3 weeks post-transplant. Nonetheless, the overall post-transplant survival rate justify the approach in salvaging patients.

RECURRENT PRIMARY HEPATIC NEUROENDOCRINE TUMOR. A CASE REPORT

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Primary hepatic neuroendocrine tumors represented about only 0.3% of all neuroendocrine tumors. Because of its rarity, the clinical characteristics, treatment and outcomes are not very well discovered. Here we reported a case of 43 year old Malay Lady who was presented with chronic diarrhea, vomiting and significant weight loss of more than 10kg over 2 months. She was noted to have hepatomegaly. The initial CT scan showed multiple liver lesion which may represent metastatic. Liver biopsy findings was consistent with neuroendocrine tumor which showed low proliferative markers with synaptophysin and chromogranin positivity. Upper Gastrointestinal Endoscopy and Colonoscopy was normal. She underwent Gallium 68 DOTATATE PET CT imaging which showed exclusive somatostatin receptor avid disease in the liver with no extrahepatic foci. Patient was then started on Intramuscular Octreotide LAR 30mg injection 4 weekly. After 9 months of treatment, she had showed excellent response by evidence of resolved gastrointestinal symptoms, good weight gain and reduced hepatomegaly. Serial CT scans showed marked regression of the liver lesion size and reduction of Chromogranin A level from 2488 ng/ml to 103 ng/ml. The Octreotide injection interval was increased to 6 weekly and 2 monthly. After almost 1 year on 2 monthly Octreotide treatment, she was presented with epigastric discomfort, persistent vomiting and diarrhea. Clinically showed hepatomegaly with recent CT Liver 3 phases showed new liver mass in left liver lobe measuring about 5.4cm x 5.3cm x 5.7cm. This is strongly suggest of a recurrent hepatic neuroendocrine tumor. The mainstay treatment should be surgical resection or liver transplant, however patient was reluctant for intervention. The medical treatment with Octreotide injection had showed initial clinical, biochemical and radiological response. Nevertheless, independent of tumor grade, follow up is necessary as recurrent is highly possible.

RETRIEVAL OF CAPSULE ENDOSCOPY USING DOUBLE BALLOON ENTEROSCOPY: A CASE REPORT

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A 48 year old lady underwent video capsule endoscopy (VCE) as part of an investigation for unexplained anaemia. Of note she had a limited right hemicolectomy due to a diverticular abscess 1 year ago. She had undergone extensive investigations including an upper and lower gastrointestinal (GI) endoscopy, all of which were unremarkable. Capsule images showed presence of non-specific inflammation in the jejunum and subsequent repetitive images of the same area with failure to visualize the colon, indicating possible capsule retention. An abdominal x-ray performed 5 days later showed that the capsule has been retained in the pelvic region. In view of non-passage of the capsule and presence of abnormal mucosa in the jejunum, a double balloon endoscopy (DBE) was performed to concurrently inspect the small bowel mucosa and remove the retained capsule. In this patient, DBE was proven to be a safe and effective method for retrieving the retained capsule in addition to closer inspection and histological assessment of mucosal abnormality seen in the VCE.

KOMBIGLYZE (METFORMIN AND SAXAGLIPTIN) INDUCED HEPATOTOXICITY IN A PATIENT WITH NON ALCOHOLIC FATTY LIVER DISEASE

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INTRODUCTION

Kombiglyze MR (Metformin with Saxagliptin) is a recent combination oral hypoglycemic agent introduced in the management of Type 2 Diabetes Mellitus. Hepatotoxicity is not a recognised adverse event of this drug. We present a case of Kombiglyze-induced cholestasis in a patient with Non-Alcoholic Steato-Hepatitis .

CASE REPORT

A 33 year old man, with no known past medical history, was referred to clinic with constitutional symptoms , polyuria & polydipsia. He was teetotal and denied usage of recreational or over-the-counter prescription drugs as well as consumption of herbal and dietary supplements (HDS) .Clinical examination revealed a non-obese (BodyMassIndex = 23.2) man with dermatopathic skin changes over his shins, palpable hepatomegaly, but no stigmata of chronic liver disease. Initial investigations revealed the following: random blood glucose of 16.6mmol/L and HbA1c of 12.4% (IFCC was 111mmol/mol), fasting total cholesterol of 7.9 mmol/L with triglyceride of 6.2 mmol/L, normal LFTs and an ultrasound scan with features of hepatic steatosis. Other viral and autoimmune aetiologies were excluded.

Management consisted of dietician referral and commencement of pharmacological therapy for his metabolic syndrome : Metformin 500mg bd , Gliclazide MR 60mg od, andfenofibrate 145mg od. Unfortunately, he could not comply with treatment, complaining of 'heaviness of the head' after consuming morning doses of Metformin & Gliclazide MR, without typical symptoms of hypoglycemia. In view of his young age and aggressive disease, his treatment was switched to Kombiglyze XR (saxagliptin 5mg + Metformin 1000mg) and Empagliflozin 25mg od.

He presented before scheduled visit 1 week later with generalised pruritus.Physical examination was unremarkable, but his LFTs had deteriorated significantly, with a rapid rise of serum ALT to 307 IU/L and serum GGT 808 IU/L (Figure 1). Following a repeat USS which was unchanged from the previous finding, a percutaneous liver biopsy was performed. The latter revealed features of non-alcoholic steatohepatitis (NASH) and marked intra-hepatic cholestasis. Kombiglyze XR was withheld 1 week after liver biopsy , with a rapid resolution of his LFTs to baseline values (Figure 1)

DISCUSSION

The phenotypes of liver injury are categorised according to the R value, defined as the ratio ALT/ULN:ALP/ULN. An R value of ≥ 5 indicates hepatocellular injury, ≤ 2 cholestatic injury and 2–5 mixed-type injury. In our case , the R value points toward mixed type (R = 3.203) Hepatotoxicity in a patient with NASH can be difficult to diagnose, based on laboratory parameters alone. Liver histology was useful in indicating that additional changes apart from NASH, was causing LFT derangement.

The Rousal Uclaf Causality Assessment Method (RUCAM) is a scoring method used to determine the probability of drug induced liver injury.Scoring process uses descriptives ranging from definite , highly likely , probable , possible or unlikely.

In our case study, the RUCAM score (calculated online) was 6 (probable Adverse Drug Reaction)

CONCLUSION

Hepatotoxicity from Kombiglyze MR is not commonly reported. Clinicians will need to be more vigilant, particularly in patients with NASH.

VENTURING BEYOND THE GASTROINTESTINAL TRACT: A CASE OF EUS-GUIDED PERICARDIOCENTESIS FOR MALIGNANT PERICARDIAL EFFUSION

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INTRODUCTION

EUS has enabled FNA of mediastinal lesions. Case reports on pericardial aspiration and biopsy and biopsy of intra-cardiac lesions have been described.*

BACKGROUND

This is a 58 year old lady with history of Left breast carcinoma, whom underwent mastectomy with chemoradio therapy in 2008. She had tumour recurrence in 2014 with malignant pleural and pericardial effusion. Transthoracic pericardiocentesis (TTP) was done once in Nov 2015 for symptomatic pericardial effusion.

In March 2016, she presented with progressive dyspnoea. Transthoracic Echo showed a posteriorly located pericardial effusion (29mm) with diastolic collapse of Right Atrium. She was unsuitable for both TTP (due to poor window) and pericardial fenestration (in view of the history of pleurodesis, previous thoracic instrumentation and poor prognosis). Therefore, transoesophageal drainage with an endoscopic ultrasound (EUS) scope was performed.

METHODS & RESULTS

The pericardial sac was punctured with a 19G needle (EchoTip, Wilson Cook) and 245 mls of haemorrhagic fluid was aspirated. There were no immediate or late complications. The patient experienced symptomatic improvement, significant reduction in the size of the pericardial effusion and an absence of diastolic right atrial collapse.

CONCLUSION

EUS-guided pericardiocentesis may be an alternative for TTP in selected cases.

*Romero-Castro R et al, Pericardial tumor diagnosed by EUS-guided FNAGastrointest Endosc. 2009

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ACUTE HEPATITIS C (AHCV): THE FORGOTTEN SPECTRUM A TERTIARY LIVER CENTRE EXPERIENCE

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OBJECTIVES

To determine the rate, clinical features and natural history of AHCV in a tertiary liver centre in Malaysia.

METHODOLOGY

Observational one year study of acute hepatitis C cases.

RESULTS

Over a one year period from 1st January to 31st December 2016, a total of 133 new cases of hepatitis C were referred to the Hepatology Department of Hospital Selayang. Of these, 4 were diagnosed to be acute hepatitis C, giving a rate of 3.01%. Two were male and two were female with ages ranging from 19 to 35. Only one patient had high-risk behaviour while the rest had no known risk factors. Three presented with icteric hepatitis while one was asymptomatic. One patient managed to achieve spontaneous clearance and another achieved sustained viral response (SVR) following monotherapy pegylated interferon therapy. The remaining two untreated patients progressed to chronic hepatitis C (CHC).

DISCUSSIONS

Based on CDC definition, AHCV is a short-term illness that occurs within the first 6 months after someone is exposed to the virus. The asymptomatic nature makes AHCV under detected. The rate of chronicity was reported between 70 to 85% depending on various host and viral factors. Factors favouring spontaneous clearance include symptomatic disease, young patients, female and non-genotype 1. However, a high sustained virological response (SVR) rates are seen if suitable patients are treated at week 12 post exposure with monotherapy pegylated interferon for a short duration of 12 weeks.

CONCLUSIONS

Clinicians need to recognize AHCV as treatment in selected cases prevents development of chronic disease. Albeit with the advent of oral direct-acting antivirals (DAA) in CHC treatment, identification of AHCV provides a unique window of opportunity in which pegylated interferon has equivalent SVR rates as oral DAA with minimal side effects and similar shorter duration of therapy but being much more practical and economical.

PREDICTORS OF RIGHT SIDED COLORECTAL CANCER-OBSERVATIONS IN A MULTIRACIAL ASIAN POPULATION

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BACKGROUND/AIMS

We aim to determine the prevalence of right sided tumours in our local population with CRC seen in our medical centre.

METHODS

We analysed all patients in UMMC who were diagnosed to have CRC via colonoscopy with histological confirmation of adenocarcinoma from January 2012 till April 2017. Right sided tumours are located between the caecum and transverse colon.

RESULTS

511 patients were diagnosed to have CRC, of which 396 (77.5 %) had left sided, 106 (20.74%) had right sided and 9 (1.76%) had synchronous tumour. The mean (SD) age was 64.83 (+/-12.55). The male to female ratio was 1.39 (297:214). Majority of the patients were Chinese (64.19%), followed by Malays, Indians and other ethnic groups (22.11%, 12.13%, 1.57%). Sub analysis amongst patients with right sided and left sided CRC is shown below:

	RIGHT SIDED (N=106)	LEFT SIDED (N=396)
AGE		
Mean (SD)	66.01 (+/-12.64) years	64.67 (+/-12.48) years
50 Years & Less	14	52
Above 50 Years	94	342
Above 50 years vs 50 years & below; p= 0.97		
GENDER		
Ratio	0.93	1.52
Male (%)	51 (17.59%)	239(82.41%)
Female (%)	55 (25.94%)	157(74.06%)
Male vs female; p=0.025 OR 1.64 CI {1.07,2.53}		
ETHNICITY (%)		
Malay	20 (17.86%)	92(82.14%)
Chinese	61 (19.00%)	260 (81.00%)
Indian	23 (37.70%)	38(62.30%)
Others	2 (25.00%)	6(75.00%)

Chinese vs Malay; p=0.801

Chinese vs Indian; p=0.002 OR 2.572 CI{1.41,4.63}

Malay vs Indian; p=0.005 OR 2.77 C1{1.36,5.69}

CONCLUSIONS

CRC is predominantly left sided in our study population. However the proportion of right sided tumors is significantly higher amongst Indians and females. This has to be substantiated in a larger sample size of Indian patients.

LIVER ABSCESS IN PUSAT PERUBATAN UKM: A REVIEW OF 44 CASES OVER 5.5 YEARS

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BACKGROUND

Liver abscess is associated with significant morbidity and mortality. We aim to review the clinical features of patients with liver abscess admitted to Pusat Perubatan UKM from 1 January 2012 to 30 Jun 2017.

METHODS

Medical records of the patients with liver abscess were reviewed and the relevant clinical, laboratory, radiology and microbiology findings were recorded and analysed.

RESULTS

Forty-four cases of liver abscesses were identified. There was a male preponderance (male:female = 3:1) with a mean age of 57.7 years (range 25 – 93 years). Fifty percent of patients were Malays, 39% Chinese, 9% Indians, and 2% others. The most common presenting complaint was fever (86%), followed by chills (39%) and abdominal pain (23%). Fifty-nine percent had diabetes mellitus and 9% had chronic hepatitis B infection. The commonest laboratory abnormalities were raised CRP (98%), hypoalbuminaemia (77%), leucocytosis (76%), hyperbilirubinaemia (50%) and raised alkaline phosphatase (46%). Fifty-seven percent of patients had a solitary liver abscess while 43% had multiple abscesses. Of the patients with solitary abscess, 80% were in the left lobe. Among the patients with multiple abscesses, 53% were in the left lobe, 37% were bilobar and 11% in the right lobe. Sixty-four percent and 68% of the solitary abscess and multiple abscesses respectively were more than 5cm in size. All patients had blood cultures sent and 34% yielded positive results. Fifty-two percent of patients underwent percutaneous drainage, of which 70% yielded positive pus culture results. The most common organism identified was *Klebsiella pneumoniae*; present in 60% of positive blood cultures and 81% of positive pus cultures. In-hospital mortality rate was 2.3%.

CONCLUSION

Fever, presence of diabetes, raised CRP, hypoalbuminaemia, leucocytosis, hyperbilirubinaemia and raised alkaline phosphatase were the common clinical and laboratory features of patients presenting with liver abscess. The in-patient mortality rate was low.

METASTATIC UNDIFFERENTIATED JEJUNAL CARCINOMA: RARE CAUSE OF SEVERE SMALL BOWEL BLEED

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INTRODUCTION

Metastatic undifferentiated jejunal carcinoma presenting as severe bleeding is a very rare presenting symptom. Most case reports of small bowel bleeding involved GIST, adenocarcinoma or lymphomas however no data is available for undifferentiated jejunal carcinoma.

CASE DESCRIPTION

A 64-year-old Malay male presented to emergency room with anemic symptoms and melena for 4 days duration and noted hemoglobin level, 4.1g/dL. His upper scope was normal and colonoscopy revealed fresh clots. Capsule endoscopy revealed multiple bleeding jejunal tumours. Enteroscopy findings were consistent with capsule endoscopy however biopsy was not taken due to bleeding. CT scan abdomen revealed long segment proximal jejunal wall tumours, largest measuring 3.2 x 4.9cm and multiple metastatic lung nodules. The patient required a total of 28 pints of packed cell transfusion over 3 weeks duration. Intra-operative findings revealed multiple polypoidal lesions in the jejunum starting 20cm from duodenal-jejunum junction with 90cm of small bowel resected. Multiple supra mesenteric aortic lymph nodes were enlarged up to 2x2 cm. On table enteroscopy up to terminal ileum revealed no residual tumours. The histopathology and immunocytochemical examination concluded: metastatic, undifferentiated, jejunal carcinoma with extensive necrosis, surface ulceration and lymphovascular invasion. The tumour invaded beyond muscularis propria to serosa layer. Patient recovered well post operatively and was referred for chemotherapy.

A REAL-LIFE COMPARISON STUDIES ON EFFICACY AND RENAL SAFETY OF ENTECAVIR AND TENOFOVIR AS LONG-TERM TREATMENT IN CHRONIC HEPATITIS B PATIENTS- AN OBSERVATIONAL RETROSPECTIVE REVIEW

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INTRODUCTION

Chronic hepatitis B (CHB) infection is one of the leading causes of liver cirrhosis and hepatocellular carcinoma (HCC). The goal of antiviral therapy in CHB is HBV-DNA suppression, HBeAg seroconversion and ALT normalization to delay the progression of liver disease and decrease in mortality.

OBJECTIVE

1) To compare efficacy of TDV and ETV in HBV-DNA suppression, HBeAg seroconversion, ALT normalization and improvement of CPS in decompensated liver cirrhosis and renal safety. 2) To compare on incidence rate of liver cirrhosis and HCC in ETV and TDF after 3years treatment.

METHODOLOGY

A retrospective study of CHB patients has been treated with ETV or TDF for at least 3years in Hospital Selayang based on the review and data extraction from electronic medical records from January 2008 to July 2016.

RESULTS

Total of 201 patients (TDF, n=100; ETV, n=101) were enrolled. ETV (93.8%) showed superiority in HBV-DNA suppression compared to TDF (87.5%). There was no significant difference between 2 antivirals in HbeAg seroconversion, ALT normalization and improvement in CPS in decompensated liver cirrhotic patients. Out of 192 patients (TDF n=95; ETV n=97) with normal renal function post 1 year treatment; 1 (1.1%) of patients in TDF arm showed eGFR <60ml/min/1.73m² versus 6 (6.2%) patients in ETV arm. For the reduction in eGFR post 1 year treatment, 6.3% in TDF arm versus 19.6% in ETV arm suffered a reduction over 25%. ETV and TDF-based antiviral treatment was effective in prevent liver progression in total of 9 patients (TDF n=5; ETV, n=4) progressed from non cirrhosis to cirrhosis stages post 3years in treatment; 10 patients (TDF n=2; ETV, n=8) from cirrhosis stage extended to HCC stage. Both arms treatment were showed statically not significant different in reported incidence of HCC in CHB patients.

CONCLUSION

This is a real life study demonstrating that long term treatment with ETV and TDF are both safe and effective.

DIRECT ANTI-VIRAL AGENTS FOR VIRAL HEPATITIS C IN THALASSEMIA PATIENT : A CASE REVIEW

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INTRODUCTION

Treating viral hepatitis C in Thalassemia patients remain a debatable issue. Viral hepatitis C infection during blood transfusion remain a main concern among patients that require recurrent blood transfusion. Current standard of treatment with peg-interferon/ribavirin may not be suitable for patients with thalassemia due to risk of hemolysis thus worsening the anemia. We report a successful case of Thalassemia patient with viral hepatitis C infection treated with Direct Antiviral Agent (DAA) and ribavirin.

CASE DESCRIPTION

A 29-year-old male, diagnosed with Hb E Beta-Thalassemia since 6 years old on recurrent blood transfusion. Referred to gastroenterology and hepatology clinic after detected to be Hepatitis C Virus (HCV) antibody positive. On presentation, he showed features of thalassemia with evidence of iron overload. Baseline investigation was Hb 8g/dl, ANC 5.7, platelet 253 x 10⁶, ALT 67 U/L and ultrasound abdomen showed hepatosplenomegaly with no liver cirrhosis or portal hypertension. Further investigations revealed HCV genotype I with baseline HCV viral load of 69,900 IU/ml, evidence of marrow hyperplasia, raised serum ferritin (1486mcg/L) and moderate hepatic iron loading on Magnetic Resonance Imaging (MRI). He was started with sub-cutaneous peg-interferon 180mcg/week monotherapy for 48 weeks. He achieved early viral response (EVR) at week 12. Peg-interferon dose was reduced to 135mcg/week at week 14 due to worsening thrombocytopenia. HCV RNA count at week 24 was less than 10 IU/ml. At week 43, peg-interferon was withheld due to severe anemia and restarted at week 46 with reduced dose to 90 mcg/week till week 48. Unfortunately end of treatment (EOT) viral load showed a relapse HCV with HCV RNA count was 309,029 IU/ml. Throughout the 48 weeks of therapy, he received a total of 38 pints of blood transfusion, 2 ward admissions, 46 times of venepunctures for full blood counts and 19 times of gastroenterology clinic visits. He was later started with DAA (paritaprevir 75mg/ritonavir 50mg/ombitasvir 12.5mg 2 tablets daily + dasabuvir 250mg 1 tablet daily) plus ribavirin 1000mg daily for 12 weeks duration. EOT HCV RNA viral count was undetectable and he achieved SVR. Throughout the 12 weeks of treatment duration, a total of 6 pints of packed cells were transfused, 6 times venepunctures, 5 times of gastro clinic reviews and zero admission.

CONCLUSION

Usage of peg-interferon with or without ribavirin among thalassemia with HCV patients requires a close and continuous monitoring plus a possibility of relapse HCV. DAAs with ribavirin prove a significant shorter duration of treatment with highest chance of SVR, and showed a probably better cost-effective option among thalassemia patients.

A PERFECTLY INDICATED COLONIC ENDOSCOPIC SUBMUCOSAL DISSECTION – CASE REPORT OF A SUCCESSFUL PROCEDURE DESPITE LIMITED ARMAMENTARIUM

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INTRODUCTION

Endoscopic submucosal dissection(ESD) is a novel resection technique that was initially designed to provide oncologic resection for large early gastric cancer with negligible lymphovascular metastasis. Its use in removing colonic lesion was not as popular.

CASE REPORT

Our patient was a 58-year-old lady with altered bowel habit. Colonoscopy revealed a non-granular(NG) lateral spreading tumour(LST) at sigmoid colon measuring 40x50mm in size. Examination under magnifying narrow-band-imaging(NBI) revealed the presence of JNET(Japanese-NBI-Expert-Team classification) type 2B vessel which predicted a diagnosis of high grade dysplasia with risk of submucosal(SM) invasion. Pit pattern analysis was not carried out as crystal-violet was unavailable. Given the information(NG-LST, large size, JNET 2B vessel), en-bloc resection was indicated.

She received general anaesthesia during the procedure. Standard gastroscope and DualKnife were used. Initial incision and dissection were made on the oral side with the scope in retroflexed position. Gelafundin solution(4%) was used as submucosal fluid cushion. Clip-and-string method was applied to the oral side of the lesion to facilitate entrance to the submucosal plane. She was discharged well at day-4 post-procedure. Histopathologically, tubular adenoma with high grade dysplasia confined above the muscularis mucosae was reported. Resection margin was clear and the resection was considered curative.

DISCUSSION

NG-LST and large(more than 2cm) G-LST of mixed nodular type are indicated for en-bloc resection as these lesions were found to harbor points of SM invasion. Ideally, hyaluronic-acid solution would provide a better SFC but we overcame the poor submucosal elevation by using clip-and-string method which facilitate dissection.

CONCLUSION

En-bloc resected lesions provide valuable information such as depth of SM invasion and margin clearance which is not available in piecemeal resection, yet important in the determination of curability. We report a case with strong indication for colonic ESD and the success in performing this procedure despite the limited resources.

RISK FACTORS AND ENDOSCOPIC OUTCOME OF UPPER GASTROINTESTINAL BLEEDING IN CRITICALLY ILL PATIENTS: A CASE SERIES

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OBJECTIVE

To identify the common risk factor and the endoscopic outcome associated with upper gastrointestinal bleeding (UGIB) in critically ill patients,

METHODOLOGY

All UGIB patients are referred to gastroenterology from High Dependency and Intensive Care Units from 15th March to 30th June 2017 were included. The demographic data, main diagnosis for HDU/ICU admission, associated risk factors and outcome of endoscopic intervention were analyzed.

RESULTS

20 patients were enrolled. The patients' age ranged from 45 to 85 with mean age of 59. 70% were male and the remaining were female. Main reasons for ICU/HDW admissions were sepsis (50%), CVA (20%), renal failure (15%) and decompensated liver cirrhosis (10%). The risk factors associated with UGIB were being ventilated (100%), the need for hemodialysis (50%), hypotensive needing inotropic support (45%), prolonged prothrombin time (35%) and severe metabolic acidosis (35%). 18 (90%) patients had gastric or duodenal ulcers. 11 patients (61%) had bleeding ulcers ranging from Forrest class Ib to IIb underwent endotherapy. All patients were given infusion proton pump inhibitor (PPI), Adrenaline injection, thermotherapy, and achieved hemostasis. Out of these, 2 patients required repeated endotherapy for clinical rebleeding (10%), both with Rockall's Score of >5. The in-patient mortality of the patients in this series was 45%. Patients with bleeding ulcers and underwent endotherapy seemed did not have higher mortality, higher number of packed cells transfused, or longer HDU/ICU than those without endotherapy.

CONCLUSIONS

In our series of critically ill patients with UGIB, gastric and duodenal ulcers were the main etiology. Combination of treatment of underlying illness, PPI infusion and endotherapy were the mainstay of treatment for this condition.

CALCIFIED LIVER PARENCHYMA IN THE ABDOMINAL RADIOGRAPH: A RARE PRESENTATION OF TUBERCULOSIS

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INTRODUCTION

Calcification of the liver parenchyma is a rare finding of abdominal radiograph. We presented an interesting radiography changes of hepatobiliary Tuberculosis(TB) in the endemic region.

CASE DESCRIPTION

A 54 years old lady with past history of Pulmonary TB presented with cough, right upper abdominal pain, fever, jaundice, anorexia with 10kg of weight loss for 2 months. On physical examination, she was jaundice. Her blood pressure was 116/60mmHg, pulse rate 78 bpm, and afebrile. There was no stigmata of chronic liver disease. She had tender and enlarged liver. There was no palpable spleen or shifting dullness. Her blood investigation showed Haemoglobin (HGB) 12.2g/dl, Platelet Count (PLT) 231000uL, Total Protein 64g/L, Albumin 19g/L, Total Bilirubin 177umol/L, Direct Bilirubin 137umol/L, Alkaline Phosphatase (ALP) 706U/L, Alanine Transaminase 49U/L, PT 13, INR1.01

Her chest radiography showed bilateral upper lobe consolidation. The abdominal radiography showed multiple calcified nodule at the liver parenchyma. Abdominal CT which showed multiple calcification in the liver and intraductal calcifications at the common, right and left hepatic ducts causing biliary obstruction and intrahepatic ductal dilatation. Multiple calcified abdominal nodes were also noted. She underwent ERCP and revealed bilateral severely strictured intrahepatic ducts. She refused Percutaneous Transabdomial Biliary Drainage. Empirical TB treatment of SEO regime (IM Streptomycin 0.6mg OD, PO Ofloxacin 400mg bd, PO Ethambutol 800mg OD) was started by the Infectious Disease Team. The bile aspirate for TB PCR and culture was negative.

Her symptoms resolved gradually. Her bilirubin reduced to 142 umol/L after 1 week of ERCP and further reduce to 50 umol/L at day 26 of anti-tuberculosis medication. The ALP remain high (960U/L) but other parameter had improved.

A CASE OF DISRUPTED DUCT SYNDROME AS A COMPLICATION OF NECROTIZING PANCREATITIS

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INTRODUCTION

Disrupted duct syndrome occurs in 30-50% of necrotizing pancreatitis.

CASE DESCRIPTION

A 17 year-old female who presented to us with 3 days history of severe epigastric pain. On examination, blood pressure 125/75mmHg Pulse rate 105 beats per min, temperature 38.2°C. There was epigastric tenderness and shifting dullness.

The blood investigation showed serum Amylase 1413 U/L, AST 115 U/L, ALT 221 U/L, ALP 249 U/L and Total Bilirubin of 24 mmol/L. She had BISAP score of 1 on admission. She underwent ultrasound and Computed Tomography(CT) of abdomen. The images showed diffusely enlarged pancreas with marked peripancreatic collection, which extended to entire retroperitoneum. There was gallbladder stone. The biliary duct was not dilated.

She was diagnosed with gallstone-induced necrotizing pancreatitis with acute necrotic collections. 2 peritoneal drainages was inserted. The peritoneal fluid showed high amylase level >12000 U/L. She was then admitted to Intensive care unit for respiratory distress, and started with intravenous antibiotics for persistent fever.

Her condition improved. Repeated CT and MRCP done at day 25 and day 31 showed destruction of the tail of pancreas and distal 2/3 of the pancreatic duct, with peripancreatic fluid collection. There was a 6 cm collection noted posterior to stomach.

During the EUS, there was necrotic pancreas seen at distal 2/3 of the body and tail, and there was no fluid collection for drainage. An ERP was then performed, and demonstrated blushing of the contrast and confirmed the disrupted duct at mid body of pancreas. A 15 cm of 7Fr pancreatic stent was inserted.

The antibiotic was discontinued and the drains were off soon after the pancreatic stenting. The patient was discharged well.

REGULATORY T CELLS IN IBD: IS THERE A DIFFERENCE IN FREQUENCIES BETWEEN MALAYSIAN AND AUSTRALIAN SUBJECTS?

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BACKGROUND AND OBJECTIVE OF STUDY

Regulatory T-cells (Treg cells) are cells that can inhibit or control the expansion of potentially pathogenic, antigen reactive T-cells. In IBD, investigators have researched the link between Treg frequencies and disease activity. At the same time, it has been highlighted that patients with IBD from developing countries tend to have more severe disease as compared to those from developed nations. Our group sought to investigate if this was present, and if so, was it related to Treg frequencies.

METHODOLOGY

Subjects with IBD as well as controls were recruited from Sydney, Australia and Kuala Lumpur, Malaysia. Peripheral blood mononuclear cells (PBMCs) were isolated, and a unique multi-parameter flow cytometry panel that included CD127 and FOXP3 was designed to evaluate the frequencies of Tregs present.

RESULTS

Overall 111 subjects were recruited, 58 from Sydney, Australia (29 CD patients, 12 with UC and 17 controls); and 53 subjects from Kuala Lumpur, Malaysia (21 CD, 23 UC and 9 controls). There was a higher proportion of Malaysian CD patients with penetrating disease. PBMC Treg frequencies in control subjects showed a significant difference in the means of the two groups (8.3 and 5.3 for Australian vs Malaysian control subjects respectively, expressed as a percentage of total CD4+ cells; $p < 0.05$). However, amongst subjects with CD there was no significant difference in the means of the two groups (8.4 and 6.8 for Australian vs Malaysian patients with CD respectively, $p = 0.44$). Similarly, in subjects with UC there was no significant difference in the means of the two groups (6.8 and 6.6 for Australian vs Malaysian patients respectively, $p = 0.69$).

CONCLUSION

Our study showed that Australian control subjects had a significantly higher Treg frequency than their Malaysian counterparts. However, there were no significant differences in Treg frequencies in IBD patients from both countries.

VENOUS THROMBOEMBOLISM (VTE) IN INFLAMMATORY BOWEL DISEASE (IBD): A CASE SERIES

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OBJECTIVE

To report 2 cases of VTE in IBD patients of Hospital Sultanah Aminah, Johor Bahru in 2016.

CASE 1

A 35 year old Malay male with known steroid dependent ulcerative colitis(UC) was admitted in June 2016 for severe relapse of UC when he presented with more than 10 episodes of loose stool a day with fresh per rectal bleeding and worsening left sided abdominal pain for more than a month. Biochemically he had active disease and a recent colonoscopy prior to admission showed severe left sided colitis. He failed to improve after 5 days of conservative treatment. A computed tomography scan of the abdomen was performed due to his persistent abdominal pain, and he was found to have extensive deep vein thrombosis involving the left common femoral vein till the distal inferior vena cava. He then responded to VTE treatment, and was in clinical, biochemical and endoscopic remission with adalimumab.

CASE 2

A 16 year old Indian male was admitted in November 2016 with a 6 months history of weight loss, abdominal pain and bloody diarrhea. He weighed 17kg on arrival. Colonoscopy findings were consistent with Crohn's disease. Colonic biopsies excluded tuberculosis and confirmed a diagnosis of Crohn's disease. He improved with hydration, antibiotics and intravenous corticosteroids. However, CT pulmonary angiography (CTPA) was performed in view of a persistent unexplained tachycardia with tachypnea and showed acute pulmonary embolism in the left descending pulmonary artery. He was started on warfarin. A repeat CTPA 6 months later showed complete resolution of the pulmonary embolus.

DISCUSSIONS

Data on VTE in IBD especially amongst Asians are limited. More studies and consensus among Asian countries are needed particularly with regards to VTE prophylaxis in IBD patients.

INCIDENCE AND PREVALENCE OF INFLAMMATORY BOWEL DISEASE (IBD) IN HOSPITAL SULTANAH AMINAH JOHOR BAHRU (HSAJB) IN 2016

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OBJECTIVE

To determine the incidence and prevalence of inflammatory bowel disease (IBD), Crohn's disease (CD), ulcerative colitis (UC) and IBD unclassified (IBDU) in HSAJB in 2016.

METHODOLOGY

We conducted a hospital-based retrospective review of all IBD cases managed in HSAJB in 2016. All IBD cases managed by gastroenterology unit of HSAJB were recorded. The incidence and prevalence of IBD were calculated using the population of state of Johor as the denominator. The incidence and prevalence rates for the major ethnicity in Johor were also calculated using its population as the denominator.

RESULTS

25 new cases of IBD were diagnosed in 2016. Among the 25 cases, 13 cases were CD, 10 were UC and 2 were IBDU. The crude incidence of IBD, CD, UC and IBDU were 0.68, 0.36, 0.27, and 0.05 per 100,000 population respectively. Indians have the highest incidence of IBD at 4.21 followed by Malays and Chinese at 0.56 and 0.18 per 100,000 population respectively. A total of 156 IBD cases were captured. Amongst them, 85 cases were UC, 68 cases were CD and 3 cases were IBDU, hence the prevalence of IBD, UC, CD and IBDU were 4.27, 2.33, 1.86 and 0.08 per 100,000 population respectively. Similarly, Indians have high prevalence at 16.84, followed by Chinese at 4.06 and Malays at 3.44 per 100,000 population.

CONCLUSION

The incidence of IBD in our study is comparable to current published data. However, the prevalence of IBD in our study is lower than that of the published ones. The ethnicity preponderance is concordant to the previous studies conducted in Malaysia.

CLINICAL FEATURES AND CHARACTERISTICS OF ULCERATIVE COLITIS (UC) IN HOSPITAL SULTANAH AMINAH JOHOR BAHRU (HSAJB)

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OBJECTIVE

To understand the clinical features and characteristics of patients with UC in HSAJB.

METHODOLOGY

We conducted a hospital-based retrospective review of all UC cases managed in HSAJB in 2016. Its clinical features, characteristics and treatments were recorded and analysed using SPSS Version 21.

RESULTS

A total of 85 cases of UC were captured. Among these cases, 10 were newly diagnosed in 2016. The mean age of the patients was 46.27 and mean age of diagnosis was 40.26. There were 36 Malays (42.4%), 32 Chinese (37.6%), 16 Indians (18.8%) and 1 from other ethnicity (1.2%). Most patients had extensive disease (E3 - 44.7%) followed by left-sided disease (E2 - 40.0%) and least had proctitis (E1 - 15.3%). 8.2% had extra-intestinal manifestations. Only 4.7% had IBD related surgery. 32.9% of the patients had one or more relapses in 2016. 81.2% of the patients ever had oral corticosteroids, 98.8% of the patients were on oral mesalamine, 40.0% were on suppositories mesalamine, 63.5% ever had thiopurines, 7.1% ever used methotrexate but only 2.4% ever had anti-tumour necrosis factor.

CONCLUSIONS

Most patients had left-sided to extensive disease that requires corticosteroids and immunomodulators at some point of their illness but only small number of patients had access to anti-tumour necrosis factor.

CLINICAL FEATURES AND CHARACTERISTICS OF CROHN'S DISEASE (CD) IN HOSPITAL SULTANAH AMINAH JOHOR BAHRU (HSAJB)

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OBJECTIVE

To understand the clinical features and characteristics of patients with CD in HSAJB.

METHODOLOGY

We conducted a hospital-based retrospective review of all cases of CD managed in HSAJB in 2016. Its clinical features, characteristics and treatments were recorded and analysed using SPSS Version 21.

RESULTS

68 cases of CD were captured. Among these, 13 were newly diagnosed in 2016. Mean age of the patients were 39.49 and mean age of diagnosis (A) were 34.54. One patient was younger than 16 years of age (A1-1.5%), 34 were between 17 and 40 years old (A2-50%) and 33 of the patients were over 40 years old (A3-48.5%). There were 29 Malays (42.6%), 13 Chinese (19.1%) 23 Indians (33.8%) and 3 from other ethnicity (4.4%). Disease locations (L) were as follows: 6 ileal (L1-8.8%), 17 colonic (L2-25.0%), 42 ileocolonic (L3-61.8%), 1 upper gastrointestinal (L4-1.5%) and 1 L1+L4 (1.5%). Disease behaviour (B) of most patients were non-stricturing, non-penetrating disease (B1-52.9%) but significant numbers had stricturing (B2-30.9%) and penetrating disease (B3-14.7%). 8 patients had perianal involvement (p-11.8%). Only 10.3% had extra-intestinal manifestations. 25% had IBD related surgery. 44.1% of the patients had one or more relapses in 2016. 91.2% of the patients ever had oral corticosteroids, 89.7% of the patients were on oral mesalamine, 92.6% ever had thiopurines, 4.4% ever used methotrexate and 23.5% ever had anti-tumour necrosis factor.

CONCLUSIONS

Patients with CD in HSAJB runs a similar complicated course of illness with almost half having stricturing or penetrating disease, a quarter had surgery and 44.1% had relapses in 2016.

ANALYSIS OF THE CONTRASTING PATTERN OF LIVER ENZYMES IN PATIENTS WITH CHOLEDOCHOLITHIASIS: A SINGLE CENTRE RETROSPECTIVE ANALYSIS

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OBJECTIVES

The study aimed to investigate the diagnostic value of liver enzymes and its pattern in association with choledocholithiasis.

METHODOLOGY

This retrospective study was carried out from January 2015 to March 2017 on all endoscopic ultrasounds (EUS) carried out for suspected biliary obstruction by the Gastroenterology Unit at Sultanah Aminah Hospital, Johor Bahru, Malaysia. Patients who presented with right hypochondrium pain and deranged liver enzymes first underwent a standard abdominal ultrasound to look for biliary obstruction. Those with inconclusive reports (dilated CBD, cholelithiasis) but high suspicion of choledocholithiasis then underwent EUS. The liver enzymes on initial presentation were then reviewed in all these patients with proven choledocholithiasis. The pattern of liver enzymes was divided into: hepatocellular (ALT > 3xULN), cholestatic (ALP > 2xULN), mixed (ALT > 3xULN, ALP > 2xULN) and non specific (ALT < 3xULN, ALP < 2xULN).

RESULTS

A total of 790 EUS were done during this time frame for obstructive jaundice. Of this, 253 patients with choledocholithiasis were picked up. Data was available for 234 patients. The mean age was 51 years with equal gender distribution. The mean ALT value was 265 iu/L (normal: <40iu/ml) and mean ALP value was 282 iu/L (normal: <129iu/ml). The mean bilirubin level was 108umol/L. A total of 145 patients (62%) had an ALT value >3xULN as compared to 102 patients (43.6%) who had an ALP >2xULN. There were six patients with ALT >1000 iu/L on presentation. Hepatocellular pattern of liver injury was seen in 39% of patients and 23.5% had mixed pattern injury. Cholestatic pattern of liver enzymes was seen in only 20.9% of patients.

CONCLUSION

There should be a high index of suspicion of choledocholithiasis in patients who present with hepatocellular/mixed pattern of liver enzyme in association with right hypochondrium pain. A negative ultrasound does not exclude choledocholithiasis in these patients and should ideally be followed by an endoscopic ultrasound.

ADALIMUMAB – A RARE CAUSE OF ACUTE LIVER FAILURE

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INTRODUCTION

Adalimumab, a tumour necrosis factor (TNF)-alpha blocker is now a commonly used agent to treat a variety of diseases including Crohn's disease and ulcerative colitis. Whilst elevated transaminases with the use of adalimumab are common, acute liver failure is rarely associated.

CASE

A 24 year old lady was diagnosed to have Crohn's disease since 2006. In January 2012, she developed stricturing disease with multiple entero-enteric fistulae. She was subsequently started on adalimumab in November 2015 after she failed conventional treatment. Her baseline alanine transaminase (ALT) prior to adalimumab ranged between 50-93 U/L. It then fluctuated between 44 and 138 U/L during adalimumab. She was admitted seven months after initiation of adalimumab with acute liver failure and menorrhagia. She had grade 3 hepatic encephalopathy with an INR of 4.41. Detailed history excluded traditional medications, alcohol, paracetamol, and other over-the-counter drugs usage. She was taking adalimumab, low dose prednisolone, calcium carbonate, and alendronate. The last dose of adalimumab was given three days prior to admission. Viral hepatitis and autoimmune screening was negative. Ultrasound abdomen excluded biliary obstruction. Adalimumab was stopped and she recovered with supportive management, but had clinical and laboratory evidence of liver cirrhosis on discharge.

DISCUSSION

We report a case of adalimumab-associated acute liver failure with elevated baseline transaminases and possible pre-existing non-alcoholic fatty liver disease. The association of adalimumab and acute liver failure in this case is graded as "probable" using the Naranjo Adverse Drug Reaction Probability Scale and "possible" using the Roussel Uclaf Causality Assessment Method (RUCAM) scale. As many researchers have documented a possible association between anti-TNF treatment and liver injury, we support the recommendation to screen patients for pre-existing liver conditions such as chronic viral hepatitis, autoimmune hepatitis, non-alcoholic fatty liver disease and alcohol abuse prior to initiation of anti-TNF therapy.

A SINGLE CENTRE EXPERIENCE IN ENDOSCOPIC ULTRASOUND GUIDED FINE NEEDLE ASPIRATION (EUS-FNA) OF SOLID LESIONS

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OBJECTIVES

The study aim was to determine factors that influence the diagnostic yields of EUS-FNA at our centre to further improve tissue acquisition.

METHODOLOGY

This retrospective study was carried out from April 2015 to April 2017 on all EUS-FNA procedures done for solid lesions by the Gastroenterology Unit at Sultanah Aminah Hospital, Johor Bahru, Malaysia. The procedure was carried out by a single endosonographer with standard FNA needles using a combination of slow-pull technique and suction. Number of passes was determined by the adequacy of tissue obtained. In each case, a total of five slides (alcohol fixed) were sent for FNA and a cellblock without rapid on-site evaluation (ROSE). The samples were read by a single experienced cytopathologist.

RESULTS

A total of 1180 endoscopic ultrasounds were performed during this period. Of this, data for 135 patients who underwent EUS-FNA was available. Seventy one patients underwent EUS for abnormalities of the pancreas, 32 patients underwent EUS for evaluation of adenopathy/mass and another 26 patients underwent EUS for obstructive jaundice. FNA was taken from the pancreas in 69 patients(51%) and lymph nodes in 44 patients(32.6%). Mean lesion size was 34mm. There was a preference to use the 25G needle due to better flexibility of the needle. A total of 105 FNA(77.8%) were done with the 25G needle and only 28 FNA(20.7%) with the 22G needle. 83% of FNA were done in two or three passes. 65% of FNA slides had moderate to high cellularity. Our average diagnostic yield was 95.5% with a 100% diagnostic yield for pancreatic lesions. Of the 135 lesions, 112 were malignant and 23 were benign.

CONCLUSION

There are multiple innovations to improve diagnostic yield of EUS-FNA. Our audit highlights the importance of proper technique and an experienced cytopathologist in improving diagnostic yield especially in the absence of ROSE.

IS 14-DAY HIGH DOSE DUAL THERAPY AS ROBUST AS 14-DAY CLARITHROMYCIN-BASED STANDARD TRIPLE THERAPY?

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BACKGROUND & AIMS

14-day clarithromycin-based standard triple therapy (STT) has been shown to be effective in *H. pylori* eradication at our local setting.¹ Recent data has shown that 14-day high dose dual therapy (HDDT) is able to attain high eradication rate when compared with 7-day clarithromycin STP.² Our aim of this study is to examine the efficacy and tolerability of 14-day HDDT vs 14-day STT as first-line eradication therapy.

METHODS

Consecutive treatment naïve participants with a positive rapid urease test during an outpatient upper endoscopy were included. All participants were randomly assigned to groups given rabeprazole (Pariet) 20 mg b.i.d., amoxicillin (Ospamox) 1 g b.i.d. and clarithromycin (Klacid) 500 mg b.i.d. for 14 days (STT Group) and rabeprazole (Pariet) 20mg q.i.d., amoxicillin (Ospmaox) 1g q.i.d. for 14 days (HDDT Group). Successful eradication was defined by negative C13-urea breath test at least 4 weeks after the completion of therapy.

RESULTS

As an interim-analysis, a total of 99 patients were recruited. In the intention-to-treat analysis, *H. pylori* was eradicated in 91.8% of patients in STT group, (45/49) (95% CI: 80.81%–96.78%) and 92.0% (46/50) (95% CI: 81.16%–96.84%) in HDDT group ($p=0.976$). Per-protocol analysis showed that the infection was successfully eradicated in 93.8% of patients in STT group (45/48) (95% CI: 83.17–97.85%) and 92.0% (46/50) (95% CI: 81.16%–96.84%) in HDDT group ($p=0.737$). There were no significant differences between groups in adverse events or patient adherence.

CONCLUSION

14-day HDDT is as robust as 14-day Clarithromycin-based STT in the treatment of *H. pylori* eradication without compromising on tolerability and adherence.

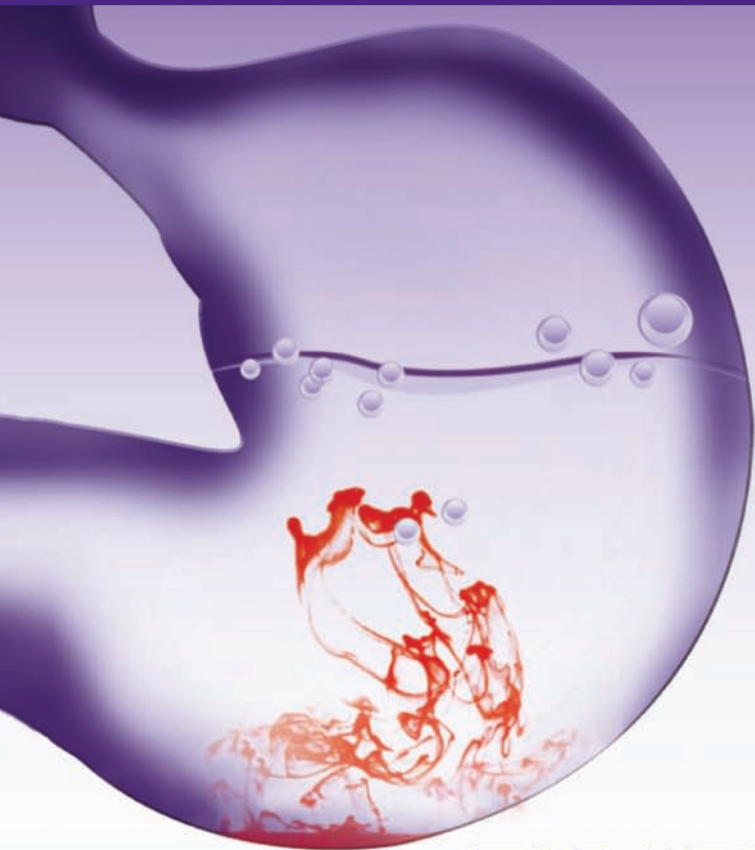
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References

1. Nexium[®] Prescribing Information. 2. sung JYJ et al. Ann Intern Med 2009;150(7):455-64. 3. Clive H. Wilder Smith et al. Alimentary Pharmacology & Therapeutics 2004; 20:1099-104. 4. K Rohss et al. Int. J of Clin. Pharma & Therapeu, vol45-No5/2007 (345-354).

Abbreviated prescribing Information:

Nexium[®] (Esomeprazole), Film-coated tab (MUPS) 20 mg x 14's, 40 mg x 14's. **Indications:** listed in dosage. **Dosage:** Adults and adolescents from the age of 12. Treatment of erosive reflux oesophagitis: 40 mg once daily for 4-8 weeks. Long-term management of patients with healed oesophagitis to prevent relapse: 20 mg once daily. Symptomatic treatment of GERD: 20 mg once daily in patients without oesophagitis until symptom control is achieved. If control has not been achieved after 4 week, the patient should be further investigated. Once symptoms have resolved, subsequent symptom control can be achieved using 20 mg once daily. In adults, an on demand regimen taking 20 mg once daily, when needed, can be used. On demand regimen not recommended in NSAID treated patient at risk of gastric cancer and duodenal ulcer. Eradication of *H. pylori*: healing of *H. pylori* associated duodenal ulcer and prevention of relapse of peptic ulcers in patients with *H. pylori* associated ulcers: 20 mg Nexium with 1 g amoxicillin and 500 mg clarithromycin, all b.i.d for 7 days. Healing of gastric ulcers associated with NSAID therapy: 20 mg once daily for 4-8 weeks. Prevention of gastric and duodenal ulcers associated with NSAID therapy in patients at risk. 20 mg once daily. Prolonged treatment after I.V induced prevention of rebleeding of peptic ulcers: 40 mg once daily for 4 weeks after IV induced prevention of rebleeding of peptic ulcers. Treatment of Zollinger Ellison Syndrome: 40 mg b.i.d. The dosage should then be individually adjusted and treatment continued as long as clinically indicated. Majority of patients can be controlled on doses between 80 mg to 160 mg daily. With doses above 80 mg daily, the dose should be divided and given b.i.d. **Contraindications:** Known hypersensitivity to esomeprazole, substituted benzimidazoles or any other constituents of the formulation, neflavinir. **Precautions:** Exclude gastric malignancy prior to treatment Fructose intolerance, glucose-galactose malabsorption or sucrose-isomaltase insufficiency. Co-administration of esomeprazole with atazanavir is not recommended. If unavoidable, close clinical monitoring is recommended in combination with an increase in the dose of atazanavir to 400 mg with 100 mg of ritonavir; esomeprazole 20 mg should not be exceeded. **Undesirable effects:** Headache, abdominal pain, constipation, diarrhea, flatulence, nausea/vomiting.

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