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IS THE BEST YET TO COME?

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Acid suppression is a key component of GERD treatment and H pylori eradication regimens and in the prevention of re- bleeding after endoscopic therapy for peptic ulcer disease. Acid suppression is also a treatment for NSAID induced dyspepsia and ulceration and is used to prevent ulceration in high-risk patients taking NSAIDs regularly. Proton pump inhibitors (PPIs), which act at the final point of acid secretion – the H^+,K^+-ATPase, are currently the most effective drugs available for acid suppression. Intravenous PPIs raise the intra-gastric pH and maintain it above 6 when they are administered as a bolus followed by a continuous infusion. These preparations significantly improve the outcomes of patients with severe hemorrhage from peptic ulcer disease.

PPIs have a few shortcomings including a slow onset of complete effect, and a duration of action that allows acid breakthrough, 12 – 18 hours after initial dosing. A number of novel pharmaceutical agents are currently undergoing clinical evaluation to improve the efficacy of drugs that inhibit acid secretion. These include potassium-competitive acid blockers, histamine H3 agonists and anti-gastrin agents. One or more of these agents may represent the future of acid-suppressive therapy.

MAKING SENSE OF AVAILABLE TREATMENT IN 2006

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Chronic hepatitis B (CHB) is a major cause of morbidity/mortality from liver failure, cirrhosis and hepatocellular carcinoma (HCC). Treatment of CHB is aimed at preventing progression of disease by reducing serum HBVDNA to low or undetectable levels and inducing remission of disease activity (normalization of ALT, and improvement of histology activity), seroconversion to anti-HBe +ve in HBe+ve cases and the loss of HBs (rarely). Selection and treatment guidelines were established by various international liver associations eg.APASL, AASLD. Recent studies have shown serum HBVDNA to be an important independent risk factor for disease progression to cirrhosis and HCC, thus requiring treatment strategies to ensure effective and sustained HBV DNA suppression.

Currently approved therapies for CHB include oral nucleos(t)ide analogs (lamivudine, adefovir, entecavir) and interferons (including peg interferon).

Oral nucleos(t)ide analogs have excellent tolerability, few side effects, and can be used in decompensated case. They are often used for prolonged periods for maintaining viral suppression as relapse after stopping treatment (18 months/2 years treatment) remained a major problem. Prolonged use of these agents induce drug resistance eg. lamivudine (Lam) and adefovir (70% and 29% respectively, 5 years) while so far no resistance was encountered with entecavir in naïve patients (2 years). Drug resistance may be associated with disease progression and exacerbations in cirrhotics and cross resistance to other nucleos(t)ide analogs eg. Lam resistant strains to entecavir. This problem of cross resistance may affect the choice of Lam in cirrhotics/decompensated cases and HBe –ve (precore and core promoter mutants) where prolonged use is expected. Adefovir or entecavir may be better choice. Interferon (IFN), in particular, pegylated IFN, has made a comeback. Studies have shown responses were more durable, and a better HBs loss/seroconverversion. Treatment period is better defined, no drug resistance. However, it is costly, and has more side effects and contraindicated in advance cirrhosis and decompensated cases. Combination therapy (pegIFN and Lam, Adefovir and Lam) were studied to see if responses were better than monotherapy.They did not prove to better in achieving greater HBe seroconversion, sustained response or other endpoint of interest. However, it was noted that peg IFN/Lam combination resulted in less Lam resistance by 5 – 7 fold giving rise to renewed interest of combining Peg IFN with oral drugs, to decrease resistance, a vexing problem associated with prolonged use of nucleos(t)ide analogs.Currently, no combination therapy stands out.

While the number of therapeutic options available in 2006 has increased, we are still searching for an option which results in durable viral remission/suppression following a finite period of treatment.

OBESITY AND GASTROINTESTINAL CANCER

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Obesity is a global epidemic that is growing at an alarming rate, plaguing not only industrialized countries but also most urbanized cities of developing nations. Globally, more than one billion adults are overweight and at least 300 million are clinically obese. Although obesity is not a major cause of gastrointestinal cancer, its increasing prevalence is believed to have contributed substantially to increasing incidence of certain types of gastrointestinal cancer in many populations. Observational studies have consistently showed that obesity raises the risk (RELATIVE RISKS ~1.5-3) for esophageal, gastric cardia, pancreatic and colorectal adenocarcinoma. Significant positive association has been observed with increased body mass index (BMI), central adiposity, as well as the fat-free mass. Case-control and cohort studies showed a greater risk of colorectal cancer in obese (BMI 30-39.9) men (RELATIVE RISKS ~1.5-2.0) and women (RELATIVE RISKS ~1.2-1.5). Obesity has also been associated with increased risk of death from these and other cancers. A retrospective study of 900,000 adults in the United States showed that when compared to those whose weight were normal (BMI 18.5-24.9), the morbidly obese (BMI ≥40) had 52%(for men) and 62% (for women) higher death rates from all cancers combined. The relationship of obesity with cancer incidence and mortality is now quite clear, but how obesity induces or promotes specific types of gastrointestinal cancer remains obscure, or at best, speculative. For this very reason, interest in obesity-related interventional strategies for prevention of gastrointestinal cancer is still lacking. The magnitude of the risk from obesity is expected to grow considerably as global obesity epidemic continues unabated. Early intervention in controlling this modifiable risk factor should therefore go a long way in the prevention of a bigger disease catastrophe.

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FATTY LIVER DISEASE

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Non-alcoholic fatty liver disease (NAFLD) includes steatosis or fatty liver (FL), non-alcoholic steatohepatitis (NASH), and NASH-related fibrosis or cirrhosis. The condition was initially described in 1980 as NASH, but the name will likely continue to evolve as our understanding of the physiologic basis increases. NAFLD is a physiologic state, and not a specific disease, but it does have several potentially significant implications. There is no single cause of this entity, and the exact pathologic mechanism has not been clearly defined.

The incidence of FL is thought to be on the rise in the United States reflecting the rising percentage of obese children and adults. While the true incidence and prevalence are not known, the estimated prevalence of FL based on elevated liver enzymes not otherwise explained in the NHANES data base is 24%. NASH is much less common in the general population, affecting 2-3% of lean individuals, but as many as 20% of those with FL. The prevalence of NAFLD in Northern Italy is roughly 21% and 14% in Japan. The risk factors commonly associated with steatosis are obesity and diabetes mellitus. Three quarters of type II diabetics have NAFLD, and virtually all individuals with morbid obesity are affected. Other risk factors are listed in Table 1.

TABLE 1: RISK FACTORS FOR NAFLD

RISK	COMMENT
Obesity	Visceral fat more harmful; waist to hip ratio more useful than BMI
Diabetes mellitus	75% of DM II have NAFLD
Hyperlipidemia	Elevated triglycerides pose main threat
Medications	Amiodarone, tamoxifen, diltiazem, prednisone, tetracycline, stavudine and other anti-retrovirals
Surgery	Jejuno-ileal bypass, gastric bypass, small bowel resection with overgrowth
Total parenteral nutrition	Can occur in a few weeks
Infections	HIV, HCV
Metabolic disorders	Wilson's disease, Abetalipoproteinemia, Glycogen storage disease, insulin resistance syndromes
Small bowel bacterial overgrowth	Stagnant bowel loops, jejunal diverticulosis, elderly, DM, motility disorders

CLINICAL FEATURES AND PRESENTATION OF IBD

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Inflammatory bowel disease is still relatively rare in Asia but is thought to be on the increase. Therefore, regional epidemiological studies are important in order to improve our overall understanding of this disease; in particular looking at potential differences in presentation, diagnosis and management compared to the West. From our own local study as well as from other Asian countries, it appears that overall the clinical features are similar. However, the clinical course of the disease appears to be less aggressive although there is conflicting data. Future areas of research should include identifying potential predisposing factors specific to our population as well as determining the efficacy of current therapeutic strategies.

SUGGESTED READING

Yang SK, Loftus EV Jr, Sandborn WJ. Epidemiology of inflammatory bowel disease in Asia. Inflamm Bowel Dis 2001; 7: 260-270

DIAGNOSING IBD IN ASIA

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The diagnosis of IBD is based on the patient's clinical history, physical examination, and a series of tests. In UC, the first goal of these tests is to differentiate it from infectious causes of diarrhea. Accordingly, stool specimens are obtained and analyzed to eliminate the possibility of bacterial, viral, or parasitic causes of diarrhea. Blood tests can check for signs of infection and anemia. ANCA tests may be useful. Endoscopy with biopsy is critical.

The more difficult diagnostic dilemmas amongst gastroenterologists working in Asia is differentiating between gastrointestinal tuberculosis (TB gut) and Crohn's disease (CD). Asia, which is endemic to tuberculosis, has been seeing increasing numbers of Crohn's disease.

The SGH experience with patients with TB gut and CD, five areas could be useful start points in making the differentitation. These include:
(a) age of patient at presentation
(b) sites of involvement
(c) histopathological features including granulomas
(d) identification of AFB and TB studies
(e) extra-gastrointestinal sites of disease

The age of presentation tend to involve younger age groups in CD. In fact more than 60% of our CD patients present between ages 20 – 39. In contrast, there was a fairly even distribution of patients diagnosed at ages 20 – 49 with another peak (albeit smaller) at age 60 – 69.

Ileum or ileo-cecal involvement occurs in almost 70 % of the time for both, confering little discriminatory value. However, no TB gut occurs in upper GI tract alone (proximal to the ileum) as opposed to CD in 12%, or had any accompanying perianal disease. Only patients with CD had entero-entero or entero-cutaneous fistulas. No endoscopic appearances are truly pathognomonic of TB gut or CD.

The histopathological features of mucosal biopsies are most important. The need to entertain a diagnosis of TB gut usually occurs in the presence of granulomatous colitis. However, granulomas do occur in CD as well. In our series, up to 17% CD patients have granulomas. The size, confluence, and density of granulomas are key to disease discrimination. CD granulomas tend to be small (microgranulomata), infrequent and sparse. TB granulomas are larger, multiple and confluent, some with caseating necrosis. In resected specimens, marked fibrosis especially in the layers of the muscularis propria are frequently associated with TB gut.

The diagnosis is obvious if the pathologist identifies acid fast bacilli on Ziehl-Neesen stains or if TB cultures are subsequently positive. The role of TB PCR studies employing gastrointestinal tissue remains a research tool fraught with varying diagnostic sensitivity. It is sometimes helpful to look for extra gastrointestinal sites for TB gut or CD for further diagnostic clues. Up to 10% of our TB gut patients have significant intra abdominal lymphadenopathy diagnosed on CT studies. However, it is well known that CD can be associated with reactive lymphadenopathy, albeit the lymph nodes are more discreet and smaller. In situations where the call may be difficult, we occasionally opt for a diagnostic laparascopy. While it is a well taught dogma that one should assiduously look for pulmonary tuberculosis in patients with TB gut, as many as 50% of our patients with TB gut have no proven tuberculosis elsewhere. Only about a third of our TB gut patients have concurrent or old pulmonary TB at the time of the diagnosis of TB gut.

In conclusion, diagnosing IBD in Asia poses special problems. The role of a dedicated GI pathologist with special interest in IBD cannot be underestimated.

THE LAW ON MEDICAL NEGLIGENCE

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There are three elements that the plaintiff has to prove, on a balance of probabilities, before the court will hold a doctor negligent. Firstly, he must show that the doctor fell below the standards expected. Here the Bolum test of "the reasonably competent doctor" still holds sway. The second element is causation i.e. the negligent act caused the damage. Here the "but for" test is applied. That is, "but for" the doctor's negligence the harm would not have occurred. The last is that the damage that occurred must not be too remote. These elements will be illustrated by decided cases. The contentious issue is however "informed consent". Here the Courts have placed a great burden on the doctors as most of the recent cases will show.

HOW TO AVOID LITIGATION – A GASTROENTEROLOGIST'S PERSPECTIVE

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Currently, GI procedures are responsible for most of the lawsuits faced by Gastroenterologist, be it be missed diagnosis of colon cancer, or, perforation following endoscopy eg. ERCP,Sphincterotomy, Colonoscopy. Missed diagnosis of liver cancer, Wilson's disease, drug induced liver disease/peptic ulceration, exacerbation of underlying chronic hepatitis B by steroids form the rest. Many lawsuits arose from combination of poor communication, misunderstanding and the strong feelings of anger or disbelief. Patients and family may also want to ensure that the 'medical error' do not occur to others in the future.

Doctors must spend time with patients and relatives – listening, responding to concerns and questions, explain the facts, indication for procedures and options/alternatives, risks involved, having family conference and be available to discuss issues. It is important to obtained informed consent before procedures. Videos, charts and diagrams are useful tools for taking consents. Communicate openly and honestly with patient and family. Document in the casenotes the advice offered, and all the patient's refusals. Create accurate, dated/time records of examination and treatment ordered. Systematic and careful documentation of patient encounters is very important.Don't over-stretch oneself. Seeing too many patients and having a busy schedule allow mistakes to be made. For Gastroenterologist engaging in procedures, be careful not to exceed capabilities, and know your limits, and when not to proceed further.

By winning our patient's trust and by remaining our patient's advocate, the chance of a suit arising from a bad outcome or complication will be diminished. Clinical excellence, a high quality of care, good communication, systematic and careful documentation of encounters/events are the doctor's best defence. For Gasroenterologists in hospital practice, having a Department of Risk Management, for advice and consultation, is very helpful.

AN OVERVIEW

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Training in the past was informal, unplanned and frequently depended upon prolonged periods of apprenticeship.

With the modern trend to shorter, more formal and structured training Gastroenterology has had to change its training methods radically. These changes have been brought about by pressures on the working week (European Working Time Directive), shift working, and increased activity by educationalists.

The changes have been lead by the Royal College of Physicians, the Joint Advisory Group on GI Endoscopy, and the new statutory body, the Postgraduate Medical Education and Training Board (PMETB).

Trainees now have a structured curriculum and are assessed against the framework of Knowledge, Skills and Attitude. Endoscopy training has moved from completion of proscribed minimal numbers of endoscopies in each endoscopic domain, to attainment of Competence against set standards.

This has been accomplished by the National Endoscopy Training Programme on behalf of the National Cancer Plan for England.

More recently consideration has been given to a further change in the curriculum on behalf of the PMETB. Gastroenterology in the UK has been producing generalists and not producing enough sub specialists. It is now planned that after core training in general gastroenterology, trainees will sub specialise in Hollow Organ Gastroenterology (predominantly IBD), Hepatology or Advanced Therapeutic Endoscopy.

The details of these many changes in training will be expanded upon, together with the advantages and disadvantages of these radical ideas.

It remains to be determined whether the end product of the new training program can be shown to be different, or more particularly better, than those trainees who learnt from their mentors in the old ways.

EVALUATING AND TREATING DYSPEPSIA

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Upper abdominal pain and discomfort is generally referred to as dyspepsia. In the absence of a structural lesion explaining the symptoms, the diagnosis of functional dyspepsia is justified. Dyspepsia and in particular functional dyspepsia are highly prevalent and affect up the 30 % of the population. Conservative estimates assume that approximately 5% of the population seeks medical attention regularly for functional dyspepsia and other functional GI disorders. Furthermore, up to 50 % of patients seen by specialised gastroenterologists fall into this category. For many years there has been widespread belief that functional gastrointestinal disorders are stress related or represent the manifestation of a psychiatric abnormality. Indeed, up to 70 % of patients with functional GI disorders presenting to specialised referral centres have an anxiety or depressive disorder if systematically screened.

There are three key issues for the management of patient with previously uninvestigated dyspepsia: a) the best initial strategy for patients presenting in primary care including the best strategy to rule out or treat underlying structural abnormalities and b) the best strategy to treat patients without underlying structural lesions and c) the management of patient who do not respond to standard therapy and are referred to a specialist.

Under all circumstances it is important to clarify the reason for seeking medical treatment. A patient concerned about his symptoms with cancer fears may require a different approach compared to a patient with severe symptoms that impair the quality of life.

MANAGEMENT OF UNINVESTIGATED DYSPEPSIA IN PRIMARY CARE

In patients chronic symptoms without alarm symptoms and an age below 50 or 55 years the likelihood of a malignancy as the cause of symptoms is very low. Life style advice, exploration with regard to dyspepsia inducing drugs (including NSAIDs, calcium antagonists, nitrates, theophyllines, bisphosphonates) are the initial management step. Since peptic ulcer disease is frequently linked to the presence of H. pylori, it is reasonable to test for a H. pylori infection (with a breath- or a stool test) and treat this infection if confirmed. Alternatively, a trial therapy with acid inhibition in patients with pain or a prokinetic in patients with meal related symptoms is a reasonable first step. It is important to note that H. pylori eradication therapy rarely improves symptoms in patients with true FD. The therapeutic benefit above placebo of approximately 5 % is most likely due to non diagnosed peptic ulcer disease. On the other hand, there is evidence that the symptom based therapy alone does not reassure the patient and ultimately increases the demand for medication. Patient need to be reviewed and management adjusted based upon the response to therapy.

MANAGEMENT OF DYSPEPSIA NOT RESPONDING TO THE INITIAL TREATMENT

In patients with non-responsive symptoms and the need for further assessment, cardiac and biliary causes of symptoms should be considered and diagnostic measures initiated. Endoscopy should be performed in these patients to definitively rule out peptic lesions. There are little properly controlled data to support specific treatment in these patients However, besides treatment with PPI and prokinetics, herbal medications have been shown in controlled trials to improve symptoms. In selected patients further function testing (gastric emptying, pH-studies might be required and the treatment adjusted accordingly (i.e. prokinetics in patients with delayed gastric emptying or muscle relaxants if there is rapid emptying). Low dose tricyclic antidepressants are a therapeutic approach that can be quite helpful. However, data from controlled trials are widely lacking. In patients not responding to this therapy, a psychological intervention can be considered. Psychological therapies, and in particular cognitive behavioural therapy and psychotherapy, may reduce dyspeptic symptoms in the short term. Given the high costs per patient, this should be reserved to patients not responding to any other treatment modalities.

LONG-TERM MANAGEMENT

Patients requiring long-term management of dyspepsia symptoms should be encouraged to reduce their use of prescribed medication stepwise: by using the effective lowest dose, by trying as-required use when appropriate, and by returning to self-treatment with antacid and/or alginate therapy.

TUMOUR MARKERS – HOW USEFUL ARE THEY?

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Primary health care providers have an increasing role in cancer care. There are questions about the various tumour markers that are available nowadays. Currently the main role for tumour markers in oncology is in assessment of response to treatment and in the follow-up of patients after treatment in order to detect relapse as early as possible. In germ cell tumours of the testis and gestational trophoblastic tumours, staging incorporates serum levels of tumour markers. In general, tumour markers have no established role as a screening tool in the general population, but some may be used in selected populations. Issues of sensitivity and specificity and implications of false-positive results will be discussed. The roles of individual tumour markers in screening, establishing diagnosis, prognostication will also be addressed.

COLORECTAL CANCER SCREENING – WHO, WHEN AND HOW?

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Colorectal cancer is the commonest or the second commonest cancer in the developed countries of the world. It is imperative there fore to have a good understanding of the causative factors and thereby obtain an understanding of how to prevent the disease or at least to detect it early.

Whilst it was previously thought to be related to a low fibre and high red meat diet, this had not been borne out neither in epidemiological nor clinical trials. What is known is that hereditary factors are most important in its causation. Furthermore laboratory mice fed on certain petrochemicals commonly found in petrol causes these mice to develop colorectal cancer in every case. Hence people living in highly industrialized countries are also at higher risk,

People from high risk families ie families with hereditary cancers must be screened early. People from families with HNPCC should be screened at an age at least 5 years younger than the age of the youngest affected member of the family. People from families with FAP should be screened from the second decade of life. People in high risk populations ie those in the developed world should be screened at about the age of 45 upwards.

Screening of fetuses in utero is a very high risk procedure and in the uncertain insurance climate, even screening of young children before clinical risk is high is not currently recommended.

LIVER ENZYMES ABNORMALITIES – HOW DO WE SORT THEM OUT?

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Routine liver function tests(LFTs) are often included in the battery of tests for health screening; annual, pre-employment and life insurance check ups. Physicians are then faced with abnormal LFTs, either single abnormality eg. mildly elevated serum bilirubin, SAP, or gamma GT; or in combinations eg. ALT/AST, Serum Bil/SAP. Vast majority of such patients are healthy and asymptomatic. Fear of having a liver disease made further evaluation unavoidable, especially chronic elevation of the liver enzymes. Management strategies are often based on medical history, symptoms, physical signs. They, however, at most times, are unhelpful. Of some value would be – medication history, alcohol intake, high body weight, history of diabetes and hyperlipidemia, pregnancy, family history of HBs carriers, liver diseases and G6PD Deficiency, and blood transfusion.

The LFTs should be repeated in 6-8 weeks as the first step. Magnitude of elevation (ALT,AST, SAP, Serum Bil) as well as its persistence of elevation are important. The pattern of elevation, whether hepatocellular (ALT/AST) or cholestatic (Serum Bil, SAP and Gamma GT) is useful to guide evaluation.

For elevated AST/ALT – fatty liver (NASH), alcohol related liver injury, chronic hepatitis B and C, Wilson's disease, Autoimmune hepatitis,medications – are important liver diseases to exclude. Muscle diseases/inflammation (rule out with CK and aldolase) and hemolysis (HB and retic count) may be associated with elevated AST/ALT. For elevated SAP, one may have to exclude its source from the bones, and growing children, often have elevated SAP around puberty. It should be paired with 5 NT or gamma GT to ensure that the SAP comes from the liver. Patient should be evaluated for chronic cholestasis (PBC, PSC, biliary stones) or infiltrative disease (granulomas, mets, sarcoid, TB). Imaging of the bile ducts eg. US abdomen, MRI or ERCP will be helpful. Elevated gamma GT alone is a common occurrence. The problem with this enzynme is its lack of specificity and can be elevated with a wide variety of conditions. It should be evaluated when the other enzymes are elevated as well eg. with elevated SAP or ALT/AST.

Finally, liver biopsy may be needed if a diagnosis is not established with noninvasive tests and imaging. Diagnosis such as NASH would require a liver biopsy.

FP 01

INCIDENCE OF HELICOBACTER PYLORI INFECTION USING (13) C-UREA BREATH TEST AND GASTRIC BIOPSY CULTURE

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BACKGROUND

(13) C – urea breath test (UBT) is sensitive and specific for detection of ***Helicobacter pylori (H. pylori)*** infection. Gastric biopsy culture for ***H. pylori*** confirms the diagnosis. Here, we analyzed data of all patients who were investigated for ***H. pylori*** infection using both tests throughout the year 2005.

MATERIALS AND METHODS

Retrospective data of 377 patients between the ages of 17 – 88 were identified through endoscopy records from January to December 2005. Upper endoscopy, UBT and gastric biopsy culture were performed on all patients simultaneously during each endoscopy session. Patients who had positive UBT and biopsy culture for ***H. pylori*** were treated with triple therapy of PPI, amoxicillin and **clarithromycin for one week.** A repeat of UBT was done at one-month post therapy.

RESULTS

Twenty-eight patients on the list had no available data on UBT and were omitted from the analysis. Ethnic group Chinese comprised of 46.7% (n = 163), followed by Malay, 38.4% (n=134), Indian, 10.9% (n = 38) and others, 4% (n = 14). UBT was positive in 24.4% (n=85). ***H. pylori*** culture was positive in 18.3% (n = 69). **Sixteen** patients with UBT positive had ***H. pylori*** culture negative, 18.8% (n = 16/85). **Five** patients with ***H. pylori*** culture positive had UBT negative, 7.2% (n = 5/69). Ethnic group Indian had the highest incidence of UBT positive, 47.4% (n = 18/38), followed by Others (Sikhs and foreigners) 42.8% (n = 6/14), the Chinese 27.6% (n = 45/163) and the Malays 11.6% (n = 16/138). UBT positive was the highest in the age group of 50 and above, 64.7% (n = 55/85), followed by the age group between 30 to 49, 21.2% (n = 18/85) and the age group of 29 and below, 14.5% (n = 12/85). **Out of the 85 UBT positive patients 91.8% (n = 78/85) of them** responded to the conventional one week of triple therapy (PPI, amoxicillin, **clarithromycin**) with negative UBT at **one-month** post therapy compared to only 8.2% (n = 7/85) who failed with positive UBT at **one-month** post therapy.

CONCLUSION

Incidence of positive (13) C – urea breath test (UBT) was 24.4%. **About** 18.8% of patients had false positive and 7.2% had false negative for UBT. We found that positive UBT was the highest among the Indians ethnic group (47.8%) and the older age group of 50 and above (64.7%). Majority of UBT positive patients (91.8%) had good response to the one-week conventional triple therapy of PPI, amoxicillin and **clarithromycin** with negative UBT at one-month post therapy. In the category of 'others' (Sikhs and foreigners), who made the second highest among UBT positives, their numbers were too small and therefore warrants further study.

FP 02

PREVALENCE OF HELICOBACTER PYLORI IN PATIENTS WITH EPIGASTRIC PAIN IN SEREMBAN HOSPITAL

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OBJECTIVE

To detect the prevalence of H. pylori among the three major ethnic groups of patients presenting with epigastric pain.

METHODS

All patients with epigastric pain who had upper endoscopy for the year 2003 were analyzed. Biopsies from the antrum and body were taken from patients who were found to have antral gastritis, duodenal ulcers, gastric ulcers and pangastritis. The prevalence of H pylori was analyzed according to race and findings on endoscopy.

RESULTS

A total of 1209 patients had upper endoscopy in 2003. 331 patients had biopsies done. Age ranged from 15 – 80 years with a median of 50. A total of 83 (25%) patients were positive for H pylori. Among the positive patients 46 (55.4%) were males and 37 (44.6%) were females. 47 patients (56.6%) were Indians, 22 (26.5%) were Chinese and 14 (16.9%) were Malays. On endoscopy, there were 184 patients with antral gastritis of which 31 (16%) were positive for H pylori, 25 duodenal ulcers of which 16 (64%) positive, 32 gastric ulcers of which 19 (60%) were positive and 38 patients with pangastritis of which 14 (36%) were positive.

CONCLUSION

H pylori is more prevalent among the Indians and least in the Malay population. Males were more infected than females. Prevalence of H Pylori seems to be almost similar in duodenal and gastric ulcers.

FP 03

GENE EXPRESSION PROFILES IN *HELICOBACTER PYLORI*-SPECIFIC CD4+ T-CELL FROM PERIPHERAL BLOOD IN CHRONIC GASTRITIS

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BACKGROUND & AIM

Colonization of human gastric mucosa with *Helicobacter pylori* is associated with chronic gastritis and peptic ulcer diseases. Disease manifestation is not only depending on the pathogenecity of the organism but also to the host immune response. Since little is known about the T-cell responses to *H. pylori*, we investigated the gene expression patterns of the peripheral blood $CD4^+$ T-cell response in chronic gastritis of *H. pylori*-infected and non-infected patients using oligonucleotide microarrays, representing approximately 24,000 genes. The status of *H. pylori* infection was determined by urea breath test, culture and histology.

RESULT & DISCUSSION

Out of 24,000 genes, we identified 51 genes with highly significant altered expression associated with chronic gastritis of *H. pylori*-infected and non-infected patients ($p < 0.001$). These genes include T- lymphocyte maturation and activation protein (MAL, HSPCB), lymphocytes-chemoattractant factor (IL16), chemokine-like factor (CKLFSF 3), activators/effectors (SH3BP1), proliferation (VPS39, STK25, RAB6IP1), signaling (PDE6B) and transcription (LGP2, EPHX2, MCSC, HK1, SAFB2).

CONCLUSION

T-lymphocytes from the peripheral blood of chronic gastritis subjects with and without *H. pylori* infection differ in their gene expression profiles. These findings will provide further insights into the basic mechanisms of host immune response towards *H. pylori* infection and development of disease.

FP 04

DETECTION OF cagE, cagM, cagT, cag6 – 7, cag10, cag13 AND IS605 GENE IN HELICOBACTER PYLORI ISOLATES AMONG THREE MAJOR ETHNIC GROUPS IN MALAYSIA

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BACKGROUND

Helicobacter pylori is the cause of chronic gastritis and is involved in the pathogenesis of peptic ulceration and gastric adenocarcinoma. Cag Pathogenicity Island (PAI) in *H. pylori* genome is reported to be a major virulence factor where cagE, cagM, cagT, cag6 – 7, cag10, cag13, and IS605 are located.

OBJECTIVE

To determine the presence of cagE, cagM, cagT, cag6 – 7, cag10, cag13 and IS605 genes in *H. pylori* isolates and to assess the association all the cagPAI genes with clinical outcome and patients ethnicity.

METHODS

Samples of gastric biopsites (antrum and corpus) were obtained from patients attending the Endoscopy Unit in Hospital Universiti Kebangsaan Malaysia (HUKM). Biopsies were subcultured for isolation of *H. pylori*. PCR technique was used to determine the presence of cagE, cagM, cag 6 –7, cag10, cag13 and IS605 genes in 299 isolates of *H. pylori*.

RESULTS

Out of 218 patients. According to the data analysis, there were association between cag6 – 7, cag10 and IS605 positives and ethnicities while the others cagPAI were no association indeed.

cagE, cagM, cagT, cag6 – 7, cag10, cag13 AND IS605 STRAINS OF *H. PYLORI* VS ETHNICITY AND OGDS

	PERCENTAGE OF POSITIVES SAMPLES (%)						
Ethnicity / cag	cagE	cagM	cagT	cag6 – 7	cag10	cag13	IS605
Malay (n = 33)	42.4	48.5	45.5	30.3	51.5	0	6.1
Chinese (n = 132)	44.7	47.7	54.5	60.6	34.1	3.0	3.8
Indians (n = 45)	37.8	55.6	60.0	22.2	62.2	2.2	15.6
OGDS / cag	cagE	cagM	cagT	cag6 – 7	cag10	cag13	IS605
Peptic ulcer disease (PUD) (n = 41)	41.5	46.3	56.1	61.0	43.9	0	7.3
Non-ulcer disease (NUD) (n = 174)	42.5	48.3	51.1	43.7	42.52	2.9	6.3

There were variation in percentage of patients with peptic ulcer disease (PUD) and non ulcer disease (NUD) between cagE, cagM, cag6 – 7, cag10, cag13 and IS605 positive strains. Referring to the analysis, there were no significant differences in all cagPAI positive strain was observed between patients with peptic ulcer diseases (PUD).

CONCLUSION

There are differences in the cagE, cagM, cag6 – 7, cag10, cag13 and IS605 positive strains of *H. pylori* isolated from the three ethnic groups in Malaysia and patients with peptic ulcer diseases.

FP 05

THE HELICOBACTER PYLORI DEMOGRAPHICS IN THE MALAYSIAN SETTING BASED ON RAPID UREASE TESTING DURING ENDOSCOPY

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BACKGROUND
Malaysia is a multiracial country comprising three culturally diverse ethnicities which include Malays, Chinese and Indians. We embarked on this study to illustrate the different patterns of Helicobacter Pylori infection in our multiracial population.

METHOD
A retrospective analysis of data from Oesophago-Gastro-Dudenoscopes (OGDS) performed at our center from 1st January 2002 to 31st December 2003 was conducted. H. Pylori testing were performed using our own institutionally prepared rapid urease test.

RESULTS
A total of 6,583 patients with 56% males and 44% females with age 52±15 (range 12-91) years with 42% Malays; 29% Chinese; 27% Indians and 2% of other races/foreigners were analyzed. A total of 1213 patients were tested positive for H.pylori (18.4%). The latter group consisted of 52% males and 48% females at age 53±15 (range 14 – 88) years with 23% Malays; 32% Chinese; 45% Indians. The Urease test was positive in 10% of Malay patients, 20% of Chinese patients and 31% of Indian patients. In the Indians H.pylori infection was more common in the (41-50 yrs) age group among the females and the (61 – 70 yrs) age group among the males. However in the Chinese H.Pylori infection is commoner in the older age group (61 – 80yrs) among both males and females. Incidence of H.pylori was constant throughout all the age groups in the Malays irrespective of gender. There were 167 cases of gastric ulcers, 71 duodenal ulcers (20 patients with both duodenal and gastric ulcers), 553 gastritis, 182 duodenitis and 240 with normal OGDS in the H. Pylori positive group. It was noted that 28.4% of Indians, 19.8% of Chinese and 10.9% of Malays who had duodenal ulcers were H.pylori positive. On the other hand 38.3% Indians, 32.7% Chinese and 15% Malays who had gastric ulcers were tested positive for H.pylori.

CONCLUSION
The highest percentage of H. pylori positivity was found among the Indians followed by the Chinese and then the Malays. H.pylori infection was more common among the younger Indians and in contrast Chinese patients had a higher incidence in the older age group. Despite the high incidence of duodenal and gastric ulcers in Malays, the H.pylori positivity was surprisingly low as compared with the Indians. We postulate that varied living environment, diverse eating habits, use of traditional medications may explain this difference in our multiracial community.

FP 06

THE RELATIONSHIP BETWEEN THE PREVALENCE OF GASTROESOPHAGEAL REFLUX DISEASE (GORD) AND HELICOBACTER PYLORI INFECTION

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BACKGROUND

Epidemiology studies have shown that the prevalence of H. pylori has decreased in the developed and some of the Far East country. At the same period of time, the prevalence of GORD has been observed to be increasing. H. pylori is observed to protect against the development of GORD by inducing corpus gastritis and subsequent reduction of acid production.

OBJECTIVE

To determine the relationship between the prevalence of GORD and Helicobacter pylori (H. pylori) infection in a large tertiary Malaysian hospital over a 7-year period. And to determine further whether this relationship was equally observed in the lower and higher grade subtype of GORD.

METHOD

This is a retrospective study of patients who had been newly admitted for upper endoscopy from 1999 to 2000 and 2004 to 2005. A total of 7419 patients had rapid urease test done during upper endoscopy. GORD was defined according to the Savary and Miller classification (1999-2000 series) or Los Angeles classification (2004-2005 series). Lower grade GORD was defined as grade I or II (Savary –Miller) or grade A or B (Los Angeles). Higher grade subtype was defined as any changes of oesophagitis higher than the above. The relationship between GORD and H. pylori was analyzed. Correlation coefficient is calculated with Pearson product moment correlation.

RESULT

Endoscopic finding of 7419 patients (3901 male; 3518 female) was reviewed. The overall prevalence of GORD was 13.7% (95% CI, 0.12-0.14). The separate prevalence of GORD was 8%, 11%, 15% and 20% for year 1999, 2000, 2004 and 2005 respectively. ($p < 0.001$). The frequency of GORD was increasing when compared cases in 1999-2000 and 2004-2005 (10% vs 17%) ($p < 0.001$). In contrast, the prevalence of positive urease test decreased from 1999-2000 to 2004-2005 (28% vs 20%); ($p < 0.001$). A negative relationship between the prevalence of GORD and H .pylori infection was noted (Correlation coefficient - 0.790). However, the increasing prevalence of GORD was observed only in the lower grade subtype. The percentage of lower grade GORD among the GORD patients was 79% in 1999-2000 rising to 89% in 2004-2005 ($p <0.001$). The higher grade GORD was 21% in 1999-2000 but down to 11% in 2004-2005. ($p < 0.001$). The inverse relationship between GORD and H. pylori infection was observed only in the lower grade subtype.

CONCLUSION

The reducing prevalence of H. pylori infection was associated with increasing prevalence of GORD, particularly the lower grade subtype. The development of GORD has other contributory factor which is not affected by any environmental means, for instance the abnormality of peristaltic movement and lower oesophagus sphincter. In a population with generally normal oesophageal motor function, the decreasing prevalence of H. pylori infection merely increased the prevalence of lower grade GORD.

FP 07

CONCORDANCE BETWEEN ENDOSCOPIC AND HISTOLOGICAL GASTROESOPHAGEAL REFLUX DISEASE (GERD)

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AIMS

To evaluate the concordance between gastroesophageal reflux disease (GERD) as determined by endoscopy and histology, using standard criteria. We also sought to determine the relationship between symptoms and endoscopic findings.

METHODS

Eighty one patients with reflux symptoms were interviewed using a symptom scoring method, before undergoing endoscopy. Esophageal mucosa was assessed and mucosal breaks classified using the Los Angeles (LA) Classification System. Biopsies taken at 3 cm above the gastroesophageal junction were evaluated by a single pathologist, blind to the clinical findings.

RESULTS

The predominant symptom was retrosternal pain (66/81). Regurgitation was the only symptom that correlated with endoscopic GERD. Erosive esophagitis was seen in 44.4% (36/81) of subjects with majority (25/36) having LA grade A. Only LA grade D was associated with moderate severity of reflux symptoms. Histological GERD was diagnosed in 15/36 subjects with erosive esophagitis and 12/45 subjects with normal-looking esophagus. The concordance between endoscopic and histological GERD was poor throughout the LA grades with a kappa value of 0.04 to 0.07.

CONCLUSION

There is poor agreement between endoscopy and histology in patients with GERD symptoms. There is also a generally poor relationship between symptom type and severity with endoscopic or histological GERD.

FP 08

RANDOMISED PROSPECTIVE TRIAL COMPARING A 48 HOUR INFUSION TO A 5 DAY INFUSION OF OCTREOTIDE IN PATIENTS WITH ACUTE VARICEAL BLEEDING

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OBJECTIVE

To compare the efficacy of a 48 hour infusion of Octreotide compared to a 5 day infusion in the prevention of rebleeding at 48 hours and at 2 weeks in patients who present with acute oesophageal variceal bleeding.

METHODS

All patients who presented to Selayang Hospital from May 2004 till January 2006 who were diagnosed to have an acute variceal bleed were commenced on Octreotide 50microgram bolus followed by a continous infusion of Octreotide at a rate of 50 microgram/hour. All patients underwent emergency endoscopy within 24 hours of admission. Only patients who were diagnosed to have bleeding due to oesophageal varices and were treated with endoscopic variceal ligation were randomized. Patients in group A continued the Octreotide infusion for 48 hours and patients in group B continued Octreotide for a total of 5 days. All patients received prophylactic antibiotics and transfusion of blood products as necessary. Rebleeding was diagnosed according to standard criteria. All patients were started on oral propranolol prior to discharge unless contraindicated and were given an appointment for a repeat endoscopy within 2 weeks.

RESULTS

37 patients were randomized in total. 18 patients were randomized to group A and 19 patients were randomized to group B. Primary haemostasis was achieved in all patients. The mean age of patients in group A was 47.5 and in group B was 50. Male to female ratio was 2.6:1 in group A and 3.8:1 in group B. Alcohol was the commonest aetiological factor, occurring in 12 patients (32%) while 9 patients (24%) suffered from chronic Hepatitis B cirrhosis. The majority of patients in both groups had Childs score of 7 or greater. No patients in group A rebled within 48 hours as well as in the first 2 weeks. 1 patient in group B rebled within 48 hours. No patients in group B rebled within the first 2 weeks.

DISCUSSION

This trial aimed to determine whether there is a difference in the rebleeeding rate in patients who present with acute oesophageal variceal bleeding based on the length of duration they are treated with Octreotide. Current guidelines suggest that Octreotide be given for a duration of 5 days. The overall rebleeding rate was low in both groups. Only one patient in group B rebled within 48 hours. This was not statistically significant. As there is a significant difference in terms of cost, need for infusion pumps and duration of patient stay if Octreotide is given for a duration of 5 days, our data suggests that Octreotide can be given for 48 hours with no difference in terms of rebleeding.

FP 09

HIGH RESOLUTION OESOPHAGEAL MANOMETRY & VIDEOMANOMETRY. REVIEW AT ROYAL MELBOURNE HOSPITAL

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High-resolution manometry (HRM) is the most recent advances that have been developed for the investigation of various oesophageal motility disorders. It has proven its ability to accurately diagnose various oesophageal motility disorders that could not be detected by conventional manometry.

OBJECTIVE

At Royal Melbourne Hospital we performed oesophageal manometric studies to determine the prevalence and characteristics of oesophageal motility disorder using HRM for various indications.

METHODOLOGY

A total of 756 HRM had been performed on 700 patients in for the period of 48 months. Reflux symptoms (considering fundoplication) 35%, endoscopy negative dysphagia 34%, atypical chest pain 10% and epigastric pain 3% are the 4 common indications among the others. Diagnoses were made using predefined standard criteria and analyzed by means of "spatiotemporal" plot with Trace! 1.2 software.

RESULTS

Normal 21%, ineffective oesophageal peristalsis (IOP) 24%, non-specific oesophageal motor disorder (NSOMD) 21%, achalasia 9.5%, diffuse oesophageal spasm (DOS) 6.7%, isolated hypotensive lower oesophageal sphincter (LOS) 4.5%, hiatus hernia 4.1%, nutcracker oesophagus 3%, oesophageal obstruction 2.2%, vascular compression 1.6%, pharyngeal weakness 1.2%, rumination syndrome 1% and hypertensive LOS 0.4%. There is no significant relationship between gender and type of motility disorder diagnosed, $p = 0.51$. Patients below 50 years of age showed a significant increased prevalence of achalasia, isolated hypotensive LOS and rumination syndrome, $p = 0.013$, $p = 0.002$ and $p = 0.033$ respectively. Patients age 50 years and older showed a significant increased prevalence of DOS, IOP and NSOMD, $p = 0.003$, $p = 0.036$ and $p = 0.038$ respectively. Patients with endoscopy negative dysphagia demonstrated higher percentage of abnormal oesophageal manometry studies when compared with other patients with reflux symptoms, atypical chest pain and epigastric pain (82% vs. 72%, 59% and 43%, $p = 0.04$, 0.001 and 0.0001).

CONCLUSION

HRM has several advantages and it is a useful tool in the investigation of oesophageal motility disorder especially in endoscopy negative dysphagia.

FP 10

PSEUDOACHALASIA IN AN ADVANCED ADENOCARCINOMA OF THE LUNG

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BACKGROUND
Pseudoachalasia, achalasia secondary to a cancer, is extremely rare and has been described classically with cancer (squamous and adenocarcinoma) of the esophagus and stomach. The descriptive pathophysiology includes direct infiltration, submucosal infiltration with destruction of the myenteric neurons or even a paraneoplastic syndrome.

CASE DESCRIPTION
A 65 year old Chinese man, with a background history of non small cell adenocarcinoma of the lung (T2N3M1) diagnosed in 2003 was initially treated with palliative chemotherapy and radiotherapy and is currently on a second course of palliative radiotherapy. He developed dysphagia to solids and liquids for the past 6 months. He had troublesome regurgitation of food and saliva with a persistent irritation to his throat, both worst at night. There was no heartburn or chest pain. He had marked loss of appetite and weight. His CT scan revealed an extensive mediastinal lymphadenopathy in the pre-tracheal, para-tracheal and para-aortic nodes. There were areas of central necrosis seen in the para-aortic nodes. Nodes appear to abut and possibly infiltrate the right atrium and left atrium. The proximal esophagus appears to be patent and dilated with hold up of contrast. There is no clear plane separating the mediastinal mass from the esophagus suggesting infiltration or extrinsic compression of esophagus. An upper endoscopy revealed a dilated and elongated esophagus with a smooth normal mucosal pattern. There were simultaneous contractions noted in the esophageal body with a very tight lower sphincter. An 8.3 mm Gastroscope passed the sphincter into the stomach with careful skilled negotiation. His Urease test was negative. A standard esophageal manometry using a 8 channel water perfuse catheter with a Dentsleeve® driven by a low compliance pneumohydraulic pump revealed an extremely high lower sphincter pressure (260 mmHg) which failed to relax (percentage relaxation ~9%). There was aperistalsis with undulating low amplitude common cavity waveform (19 mmHg). A Percutaneous Endoscopic Gastrostomy feeding tube was placed after discussing the prognosis risk of perforation with pneumatic dilatation and the poor response with Botulinium toxin injection.

DISCUSSION
Pseudo-achalasia is a uncommon presentation of an advanced adenocarcinoma of the lungs and in this case it is attributed to infiltration of the nerve plexus at the lower esophagus. It is imperative to look for a secondary cause in all patients with achalasia. A careful assessment of the cardia and lower esophagus is mandatory during endoscopy. If necessary, further imaging with CT, MRI or EUS of the lower end of the esophagus is necessary. This is the first case of pseudo-achalasia noted in this center after having evaluated 64 prior cases of Idiopathic Achalasia.

FP 11

THE UTILITY OF PNEUMATIC DILATATION IN THE TREATMENT OF ACHALASIA CARDIA IN A TERTIARY REFERRAL CENTER IN MALAYSIA; THE KUALA LUMPUR HOSPITAL SIX YEARS EXPERIENCE

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BACKGROUND

Despite being recognized as a first line modality of treatment for achalasia cardia, pneumatic dilatation has varied center-specific durability and complication rate. We describe our experience utilizing pneumatic dilatation in the treatment of patients with achalasia cardia.

METHODS

This is a prospective dynamic cohort study looking at treatment naïve patients with achalasia cardia offered pneumatic dilatation from 1st Jan 2000 till 31st December 2005. Pneumatic dilatation was performed using a 30mm polyethylene pneumatic dilator inflated to 7psi till loss of waist and pressure maintained for a further 0 – 3 seconds (group A) or 15 – 30 seconds (group B). Statistical methods includes descriptive analysis, testing for difference in survival using the Kaplan Meier method with log rank test and Cox regression model to assess independent prognostic factors determining durability.

FINDINGS

A total of 50 patients underwent pneumatic dilatation, with a mean presenting age of 47±16 (range: 19 – 73) years; with 18 males: 32 females and 25 Malays: 18 Chinese: 7 Indians, with a mean follow-up of 40±20 (range: 1 – 72) months, were analyzed. We report excellent improvement in the 9 point symptoms score pre/post treatment ($p < 0.01$) and mean weight gain of 4±4 (0 – 19 kg) after 3 – 9 mo post procedure ($p < 0.001$). Nine patients required a second dilatation after 20 ±16 (range: 1 – 43) months. Two patients required a third dilatation. The total 63 pneumatic dilatations had a durability of 33±19 (range: 1 – 72) months. No perforations or complications were encountered. Average hospital-stay was 1.5 days post-procedure. There was no difference in the durability utilizing the two different pneumatic dilatation techniques in group A ($n = 28$) compared to group B ($n = 22$) using a log rank test ($P > 0.05$). Twelve patients had mega-esophagus defined when their esophagus assumes a sigmoid configuration on barium swallow. There was no difference in the durability of dilatation in patients with mega-esophagus (log rank test, $p > 0.05$) compared to those without mega-esophagus. There was no difference in efficacy in subsequent dilatations ($n = 13$) compared to the first dilatation ($n = 50$) ($p > 0.05$). Gender, race, age, duration of symptoms, presence of weight loss, presence of symptom (chest pain, heartburn, nocturnal cough), the duration of maintaining the insufflated pressure and presence of mega-esophagus on barium swallow are not independent prognostic factors determining the durability of dilatation.

CONCLUSION

Pneumatic dilatation is found to be an effective and safe treatment modality requiring a short hospital stay. It is equally effective in patients with mega-esophagus. There is maintained efficacy despite repetitive dilatation. We fail to identify any predictive prognostic factors which determine the durability of pneumatic dilatation.

FP 12

THE PREVALENCE OF HELICOBACTOR PYLORI INFECTION IN PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE (GORD) AND ITS ASSOCIATION WITH TYPES OF GASTRITIS

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INTRODUCTION

Studies have shown that H. pylori infection is protective against the development of GORD. (1) It has also been observed by few that it is the corpus predominant gastritis that gives this particular protection, through inducing atrophic gastritis and concomitant hypoacidity. (1,2)

OBJECTIVE

To investigate the prevalence of H. pylori infection and the development reflux oesophagitis and its association with types of gastritis.

METHOD

Patients with symptoms of reflux, dyspepsia and epigastric pain seen between August 2005 and January 2006 were studied. GORD was defined and classified based on the Los Angeles (LA) classification. Non-erosive reflux disease (NERD) was defined as patients with typical symptoms of reflux with normal endoscopic findings. The prevalence of H. pylori infection was determined by rapid urease test. Patients were stratified into 2 groups: reflux and non-reflux oesophagitis. Patients with NERD, GORD and Barrett's oesophagus were grouped as reflux oesophagitis. Odds ratio (OR) and 95% Confidence Interval (95%CI) were analysed.

RESULT

A total of 1046 patients (408 males & 638 females) who satisfied the inclusion criteria were studied. Two hundred and four (19.5%) patients had corpus predominant gastritis while 414 (39.6%) patients had antrum gastritis. Peptic ulcer was detected in 94 (9.0%) patients and the remaining 334 (31.9%) patients had normal endoscopic findings. The prevalence of H. Pylori infection for NERD, GORD (LA) grade A, B, C, D and Barrett were 14.3%, 17.8%, 19.7%, 20% , 40% and 20% respectively ($p < 0.05$). The prevalence of H. Pylori infection in the non reflux group was 24.0%. The overall prevalence of H. pylori infection in the reflux oesophagitis patients (18.5%) was significantly lower than the non-reflux group (24.0%) (OR: 0.71, 95% CI: 0.5-1.0, $p < 0.01$). In patients with H. pylori infection, it was observed that reflux oesophagitis was more prevalent in those with antrum gastritis (25.8%) as compared to those with corpus predominant gastritis (22.2%) (OR: 0.82, 95% CI: 0.4-1.8, $p > 0.01$).

CONCLUSION

H. pylori infection is protective against the development of GORD. The corpus predominant gastritis group with H. pylori infection appeared to offer better protection against GORD. These are identical to observations by others.(2,3)

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FP 13

BRAVO™ WIRELESS OESOPHAGEAL PH MONITORING FOR PATIENT WITH GASTROESOPHAGEAL REFLUX DISEASE

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BACKGROUND

The traditional system for 24 hours pH monitoring requires transnasal introduction of a catheter with pH sensors. This procedure creates discomfort, inconvenience and interference with daily routine. The introduction of wireless pH monitoring has been touted as a significant advancement in the diagnosis of gastroesophageal reflux disease[1]. Wireless 48-hour pH monitoring may allow more accurate detection of abnormal esophageal acid exposure versus the conventional 24-hour pH monitoring.

AIM

To evaluate safety, tolerability and performance of the pH Bravo capsule in patients with symptomatic or erosive GERD.

METHOD

Data for all patients undergoing endoscopy with wireless pH studies (Medtronic Bravo pH system) starting from January 2005 to May 2006 from Hospital Kuala Lumpur were reviewed. pH Bravo capsule was placed 6 cm above gastroesophageal junction (GOJ) after the level was confirmed by endoscopy. A second endoscopy was done immediately to confirm the successful placement of capsule. The pH recordings over 48 hours were obtained after uploading data to a computer from the pager-like device that recorded pH signals from the Bravo pH capsule. Symptoms, quality and duration of pH tracings were evaluated.

RESULT

A total of 16 studies were performed for 15 patients (9 males, 6 female) with 11 assessment for non erosive symptomatic reflux disease (NERD) and 4 erosive GERD. One patient had a repeated test to assess the adequacy of acid suppression while she was still symptomatic on proton pump inhibitors. One capsule failed to attached to esophageal mucosa and remained intact in the probe. Two patients experienced foreign body sensation and dysphagia which resolved without intervention. Significant chest pain was recorded in 8 (57%) of the 14 studies but none need premature endosocpic removal of capsule. One patient regurgitated her capsule and returned it after four days. Successful pH recording for a complete 48 hours was obtained in all 14 studies successfully placed capsules. Abnormal esophageal acid exposure was defined by a Johnson-DeMeester score greater than 14.7 and was obtained in 5 (36%) (3- Erosive GERD; 2-non-erosive GERD) of the 14 studies.

CONCLUSION

Esophageal pH monitoring with Bravo capsule is a safe and tolerable method. This is particularly valuable for patient not able to accept the idea of a trans-nasal catheter placement of pH probe for 24 hours. The episode of chest pain experienced in half of the patients may be due to hypertensive esophageal contractions related to the capsule placement[2].

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FP 14

DOES THE ROCKALL SCORE PREDICT UPPER GI REBLEED DURING HOSPITALIZATION IN THE SABAH POPULATION?

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BACKGROUND

Upper gastrointestinal (GI) bleed is a common medical emergency in Malaysia with an incidence of 72 per 100,000. It is important to identify patients at high risk of rebleeding and mortality who will benefit most from intensive treatment. The Rockall score was designed to predict mortality and it can also be used to predict rebleeding in the western population. The applicability of the Rockall score has not been reported in Malaysia to our knowledge.

OBJECTIVES

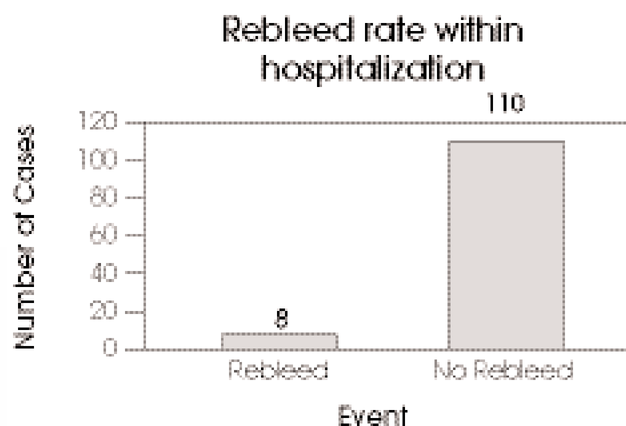
To assess the applicability of the Rockall score in the prediction of rebleeding during hospitalization for the Malaysian population in Sabah with non-variceal upper GI bleed.

MATERIALS AND METHODS

This is a cross-sectional study analyzing 118 patients with complete data at the Endoscopy Unit in the Queen Elizabeth Hospital, Kota Kinabalu with a diagnosis of non-variceal upper GI bleeding from January 2005 to December 2005. Medical records were analysed to determine the outcome during hospitalization. The Rockall scores are categorized into low (0 – 2), intermediate (3 – 7) and high (8 – 11) groups.

RESULTS

During hospitalization, 110 patients had no rebleed and 8 (6.78%) patients had rebleed. 2 (4.44%) out of 45 patients with low Rockall score (0 – 2) had rebleed. Out of 69 patients with intermediate Rockall score (3 – 7), 4 (5.80%) had rebleed. 2 (50%) in 4 patients with high Rockall score (8 – 11) rebled. There was significantly less rebleeding rate during hospitalization among patients with low Rockall score, $p<0.05$ ($p = 0.002$).



CONCLUSION

This study shows that Rockall score can be used to identify patients with upper GI bleed who are at low risk of rebleeding during hospitalization.

FP 15

DOES THE ROCKALL SCORE PREDICT UPPER GI REBLEED WITHIN 30 DAYS OF DISCHARGE IN THE SABAH POPULATION?

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BACKGROUND

Upper gastrointestinal (GI) bleed is a common medical emergency in Malaysia with an incidence of 72 per 100,000. It is important to identify patients at high risk of rebleeding and mortality who will benefit most from intensive treatment. The Rockall score was designed to predict mortality and it can also be used to predict rebleeding in the western population. The applicability of the Rockall score has not been reported in Malaysia to our knowledge.

OBJECTIVES

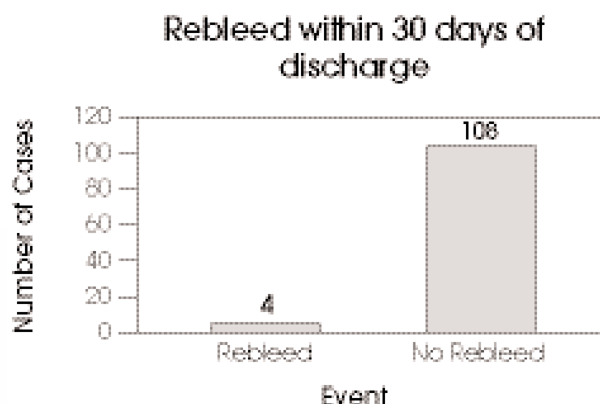
To assess the applicability of the Rockall score in the prediction of rebleeding within 30 days of discharge for the Malaysian population in Sabah with non-variceal upper GI bleed.

MATERIALS AND METHODS

This is a cross-sectional study analyzing 118 patients with complete data at the Endoscopy Unit in the Queen Elizabeth Hospital, Kota Kinabalu with a diagnosis of non-variceal upper GI bleeding from January 2005 to December 2005. Medical records were analysed to determine the outcome within 30 days of discharge. The Rockall scores are categorized into low (0 – 2), intermediate (3 – 7) and high (8 – 11) groups.

RESULTS

6 patients died during hospitalization and 112 patients were discharged. Within 30 days of discharge, 108 patients had no rebleed and 4 (3.57%) patients had rebleed. 2 (4.44%) out of 45 patients with low Rockall score (0 – 2) had rebleed. Out of 64 patients with intermediate Rockall score (3 – 7), 2 (3.12%) had rebleed. All the 3 patients with high Rockall score (8 – 11) had no rebleed. The association of Rockall score and the risk of rebleeding within 30 days of discharge is not statistically significant, $p > 0.05$ ($p = 0.883$).



CONCLUSION

This study shows that Rockall score is not useful as predictor of rebleeding within 30 days of discharge in patients with upper GI bleed.

FP 16

DOES THE ROCKALL SCORE PREDICT MORTALITY DURING HOSPITALIZATION IN UPPER GI BLEED IN THE SABAH POPULATION?

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BACKGROUND

Upper gastrointestinal (GI) bleed is a common medical emergency in Malaysia with an incidence of 72 per 100,000. It is important to identify patients at high risk of rebleeding and mortality who will benefit most from intensive treatment. The Rockall score has been validated as a prognostic tool for the risk of mortality in the western population but it has not been validated in Malaysia to our knowledge.

OBJECTIVES

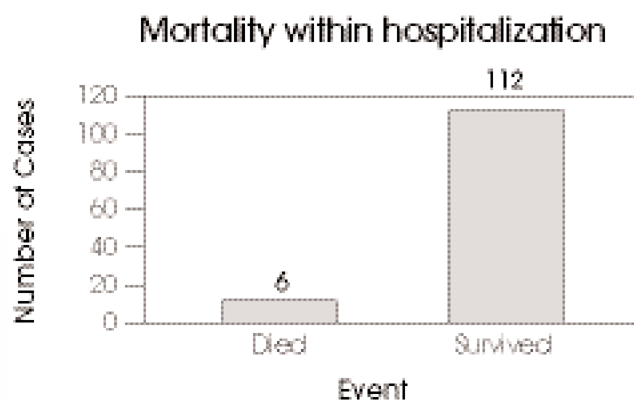
To assess the applicability of the Rockall score in the prediction of mortality during hospitalization for the Malaysian population in Sabah with non-variceal upper GI bleed.

MATERIALS AND METHODS

This is a cross-sectional study analyzing 118 patients with complete data at the Endoscopy Unit in the Queen Elizabeth Hospital, Kota Kinabalu with a diagnosis of non-variceal upper GI bleeding from January 2005 to December 2005. Medical records were analysed to determine the outcome during hospitalization. The Rockall scores are categorized into low (0 – 2), intermediate (3 – 7) and high (8-11) groups.

RESULTS

During hospitalization, 6 (5.08%) died and 112 patients survived. All the 45 patients with low Rockall score (0 – 2) survived. Out of 69 patients with intermediate Rockall score (3 – 7), 5 (7.25%) died. 1 (25%) of 4 patients with high Rockall score (8 – 11) died. There was significantly less survival rate during hospitalization the higher the Rockall score, $p < 0.05$ ($p = 0.041$).



CONCLUSION

This study shows that Rockall score can be used to predict mortality during hospitalization in patients with upper GI bleed.

FP 17

DOES THE ROCKALL SCORE PREDICT MORTALITY WITHIN 30 DAYS OF DISCHARGE IN UPPER GI BLEED IN THE SABAH POPULATION?

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BACKGROUND

Upper gastrointestinal (GI) bleed is a common medical emergency in Malaysia with an incidence of 72 per 100,000. It is important to identify patients at high risk of rebleeding and mortality who will benefit most from intensive treatment. The Rockall score has been validated as a prognostic tool for the risk of mortality in the western population but it has not been validated in Malaysia to our knowledge.

OBJECTIVES

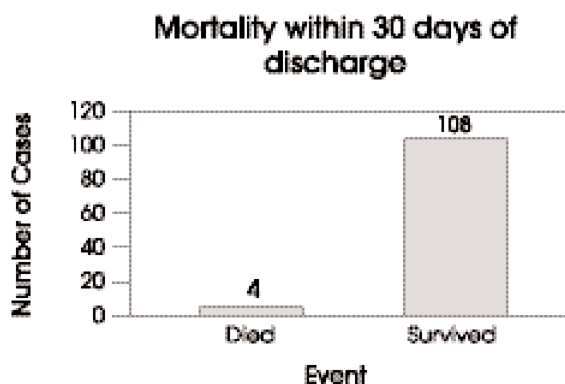
To assess whether the Rockall score can be used to predict mortality within 30 days of discharge for the Malaysian population in Sabah with non-variceal upper GI bleed.

MATERIALS AND METHODS

This is a cross-sectional study analyzing 118 patients with complete data at the Endoscopy Unit in the Queen Elizabeth Hospital, Kota Kinabalu with a diagnosis of non-variceal upper GI bleeding from January 2005 to December 2005. Medical records were analysed to determine the outcome within 30 days of discharge. The Rockall scores are categorized into low (0 – 2), intermediate (3 – 7) and high (8 – 11) groups.

RESULTS

6 (5.08%) died during hospitalization and 112 patients were discharged. Within 30 days of discharge, 4 (3.57%) patients died and 108 survived. 1 (2.22%) of 45 patients with low Rockall score (0 – 2) died. Out of 64 patients with intermediate Rockall score (3 – 7), 3 (4.69%) died. All the 3 patients with high Rockall score (8 – 11) survived. There was no statistical significance between the Rockall score and the survival rate within 30 days of discharge, $p > 0.05$ ($p = 0.748$).



CONCLUSION

This study shows that Rockall score is not useful as predictor of mortality within 30 days of discharge in patients with upper GI bleed.

FP 18

THE 2006 KUALA LUMPUR HOSPITAL ACHALASIA CARDIA REGISTRY: LESSONS TO LEARN FROM A COMPREHENSIVE SIX YEARS REVIEW

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BACKGROUND

Achalasia cardia is an uncommon but important esophageal motility disorder that is often diagnosed late and best care often delayed. Upper endoscopy often reveals a capacious/ dilated esophagus with retained saliva or food and simultaneous contractions of the esophagus. It is often said that a standard esophageal manometry has the highest sensitivity in the diagnosis of achalasia with defining features that include aperistalsis of the mid and lower esophagus and incomplete or absent lower esophageal sphincter relaxation.

METHODS

This is a dynamic prospective cross-sectional study which recruited all patients assessed for achalasia cardia from 1st Jan 2000 -31st Dec 2005 in our center.

RESULTS

A total of 61 patients, age 48±17 (range 19 – 85) years, 59% females, 34 Malays: 19 Chinese and 8 Indians, were analyzed. There is a trend towards a younger age ($p > 0.05$) but a female predilection ($p < 0.005$) with a Malay preponderance but sparing Indians ($p < 0.05$). Dysphagia was noted in 59 patients (97%), regurgitation 90%, heartburn 41%, weight loss 51%, nocturnal cough 46%, chest discomfort 31%, hemetemesis 7%, aspiration pneumonia (2), active pulmonary tuberculosis (1), and bronchiectasis (1). One patient was referred for GERD and failure of H pylori eradication but a capacious esophagus was duly noted. The duration of illness was 68±97 (range 0 – 360) months and presenting weight was 53±12 (range 33 – 92) kg. Barium swallow confidently diagnosed achalasia in 35 patients(57%) while the remaining were diagnosed as a dysmotility disorder (10), possible carcinoma of the oesophagus (2), possible achalasia (5), benign stricture (2), presbyesophagus (2) and normal (2). A total of 14 had mega-esophagus and eight had epiphrenic diverticulum with no pseudoachalasia. Esophageal manometry, in 56 cases, all demonstrated aperistalsis, with 2 tracings of vigorous achalasia. The assembly failed to pass the sphincter in 15 (technical failure: 27%), which includes 8 patients with with megaesophagus. Seven demonstrated normal LOS pressure with incomplete relaxation (normotensive achalasia). Fifty underwent pneumatic dilatation using a 30 mm dilator under fluoroscopy, 7psi applied for 0 – 30 seconds after loss of waist without complications, excellent symptomatic relief, 3 – 24 months post-procedural weight gain of 4±3 (range: 0 – 18) kg and durability of 33±19 (range:1 – 72) months with two patients needing repeat immediate second dilatation. Nine patients required two dilatation and two had three. The dilatation was just as effective in patients with megaesophagus ($p > 0.05$). One patient had Botulinium Toxin injection, another esophagectomy for a megaesophagus, six dilated at the individual referring center and 3 opted for conservative treatment.

CONCLUSION

Neither manometry (73% confirmatory) or barium (57% confirmatory) can be deemed as gold standard diagnostic tools in this series. Along with a good history, both tests provided that there is no mechanical obstruction on endoscopy clinches the diagnosis of achalasia cardia. Pneumatic dilatation is a safe therapeutic option with excellent durability without any complications and this extends to achalasia with megaesophagus.

FP 19

DOES THE EXTRA 24H PH MONITORING OFFERED BY BRAVO™ CAPSULE INCREASE THE SENSITIVITY IN GORD DETECTION?

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BACKGROUND
The traditional ambulatory 24-hour oesophageal pH measurement is the gold standard for detecting abnormal esophageal acid exposure (AEAE). However, day to day variability of esophageal exposure to acid may occur as shown in some studies. Wireless 48-hour pH monitoring may offer higher detection of AEAE versus 24-hour pH monitoring in making the diagnosis of GORD.

AIM
To evaluate the sensitivity of total 48 hour offered by Bravo pH capsule instead of the conventional 24 hour pH in making the diagnosis of GORD.

METHOD
The medical records of all patients undergoing ambulatory 48-hour esophageal pH monitoring using the BRAVO capsule at hospital Kuala Lumpur from January 2005 to May 2006 were reviewed. pH Bravo capsule was placed 6 cm above gastroesophageal junction (GOJ) after the level was confirmed by endoscopy. The pH recordings over 48 hours were obtained after uploading data to a computer from the pager-like device that recorded pH signals from the Bravo pH capsule. The acid parameter of the pH tracing including number of reflux and % of time pH <4 were studied with relation to the supine and upright position. Abnormal esophageal acid exposure (AEAE) is defined as Demeester score > 14.72.

RESULT
16 studies were done for 15 patients. One capsule failed to dislodge from the probe and did not attach to oesophageal mucosa. 13 data analyzed in the study had interpretable recordings for 2 consecutive days, allowing for analysis of day-to-day variability in esophageal acid exposure. Total Johnson- Demeester score of more than 14.72 was observed in 5 patients. In 11 (85%) patients, number of reflux events as well as time (%) pH<4 correlate from the first 24-hour period to the second 24-hour period. Only 3 (23%) demonstrated AEAE for both days of the study. whereas 2 patients (15%) demonstrated AEAE in a single 24-hour period on day 2 of study. There was no difference in the prevalence of AEAE on day 1 versus day 2 only (23% vs. 15%, p = 0.64). Compared with 24-hour alone data, 48-hour data showed an extra 15% more patients with AEAE. This was sufficient to translate into the diagnosis of GORD when the total Demeester score was taken into account.

CONCLUSION
The Bravo pH system appears to have a potential advantage of the 2-day recording period. Higher rate of GORD detection was obtained by the extra 24 hours pH monitoring in our series.

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FP 20

OUT OF HOURS ENDOSCOPY IN THE KUALA LUMPUR HOSPITAL

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BACKGROUND

The gastroenterology division of the Kuala Lumpur Hospital offers an on all "Haemetemesis and Malaena (H&M)" service. The majority of patients are referred from general medical wards, medical subspecialty units and casualty. H&M cases defined as out of hours were patients who were referred and had an upper endoscopy performed after 6pm on a working day or during weekends and public holidays.

METHOD

112 patients were audited during the period from January 2005 to April 2006.

RESULTS

There were 48 Malays (42.8%), 37 Chinese (33%), 25 Indians (13.4%) and 2 indigenous and non Malaysian (1.8%) patients of whom 81 (72.3%) were males and 31 (27.7%) females with an average age of 59.5±15.4 years (range 22 – 94 years). Duodenal ulcers were found in 32 (28.6%) patients of which 2 (1.8%) were Forrest1a, 5 (4.5%) F1b, 1 (0.9%) F2a, 3 (2.7%) F2b and 1 (0.9%) F2c ulcers. There were 29 (25.9%) patients with gastric ulcers of which 2 (1.8%) were F1b, 1 (0.9%) F2a and 3 (2.7%) F2b ulcers. Variceal bleeders comprised 20 (17.9%) patients with 9(8%) grade 2, 7 (6.3%) grade 3, 1 (0.9%) grade 4 esophageal varices and 3 (2.7%) fundal varices. There were 8 patients (7.1%) with esophageal ulcers/severe GERD. Four patients had tumours with esophageal, gastric and duodenal lesions comprising 1, 2 and 1 patients respectively. Mallory-Weiss tears were found in 2 (1.8%) patients. Adrenaline injection alone was the treatment of choice in 24 (21.4%) patients whereas 12 (10.7%) had combination therapy with adrenaline and heater probe, 4 (3.6%) were treated with adrenaline, heater probe and haemoclips and 2 (1.8%) had adrenaline with haemoclips. Variceal banding was performed for 17 (15.2%) patients and histoacryl was injected into all 3 patients with fundal varices. 48 (42.9%) patients did not require endoscopic therapy. This was inclusive of 13 (11.6%) patients with no demonstrable cause of bleeding on upper endoscopy.

CONCLUSION

Duodenal ulcers were the most common cause of upper gastrointestinal bleeding seen in our series followed by gastric ulcers and varices. Most patients who had an endoscopy out of hours required luminal therapy. The relatively high rate of patients not requiring any endoscopic therapy may in part be explained by the "open access system" of referral in our hospital. Some of the patients with normal upper endoscopy findings may have had lesions that were located beyond the 3rd part of the duodenum.

FP 21

ANALYSIS OF 99 PATIENTS WITH GASTRIC POLYP: AN AUDIT FROM HOSPITAL KUALA LUMPUR

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BACKGROUND

Gastric polyp is a common finding during upper endoscopy examination for various reasons. The frequency is increasing probably due to widespread use of endoscopy and greater awareness of its malignant transformation potential. However, the data on the frequency and location of the various types of gastric polyps are highly inconsistent.

AIM

To analyze gastric polypoid lesions in our patient population with respect to histopathologic features and demographic, clinical, and endoscopic characteristics of patients.

METHOD

Clinical records and histopathologic reports of patients with gastric polypoid lesions were analyzed retrospectively.

RESULT

Between January 2005 and April 2006, 99 patients with gastric polypoidal lesion were identified in a series of 4599 upper endoscopy (2.2%). There was a slight female preponderance (53.5% vs 46.5%) with a median age of 60±11.6 (range: 31 – 84). The racial distributions were 30%, 35.4% and 34.4% for Malay, Chinese and Indian. The most frequent presenting symptom was dyspepsia and epigastric pain that was observed in 44% patients. Symptoms were mostly related to various associated gastric abnormalities such as chronic gastritis or peptic ulcer disease rather than polypoid lesion itself. 11 patients had a previous history of gastric polyp. Out of all lesions, 92% had the largest dimensions less than or equal to 5 mm. With regard to distribution, polyps were located as follows: 53.5% in the corpus, 17.2% in the fundus, 13.1% in the antrum and 16.1% in both the corpus and antrum. 95% of the lesion had negative rapid urease test for H. pylori. Either polypectomy or biopsy was done in majority of cases (89%). The most frequent types found were fundic gland polyps (54.5%), followed by hyperplastic polyp (14.7%), inflammatory polyp (9.0%) and adenomatous polyp (5.6%). No histological structure of polyp was identified in 14 biopsies (16%) and was reported as gastric mucosa. None of the above lesions had dysplasia or metaplasia.

CONCLUSION

Fundic gland polyp is the most frequently identified subtype of gastric polyp in our series. Follow-up of a longer duration may provide information regarding potential malignant transformation such as dysplastic changes.

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FP 22

ROCKALL RISK ASSESSMENT SCORE IN PATIENTS ADMITTED FOR ACUTE NON-VARICEAL UPPER GASTRO-INTESTINAL BLEEDING AT HOSPITAL QUEEN ELIZABETH, SABAH

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BACKGROUND

Upper gastrointestinal bleeding (UGIB) is a common cause for emergency admission to hospitals and is associated with significant morbidity and mortality, especially with advancing age. Various scoring systems have been developed to assess re-bleeding rates as well as mortality among patients with UGIB. The Rockall risk assessment score which was derived from the UK national audit for UGIB is the most widely used and validated scoring system.

OBJECTIVE

To study the outcome of patients admitted for Non-variceal upper gastrointestinal bleeding using the Rockall risk assessment score.

METHODS

Data from 191 patients admitted for non-variceal UGIB between October 2003 and April 2004 were prospectively recorded in a standardized proforma. Rockall score was calculated and the mean scores between patients who had no adverse outcome (re-bleed/death) were compared with those who re-bled or died. Patients were also divided into 2 groups and outcome of patients with scores of ≤ 7 were compared with those who scored ≥ 8.

RESULTS

The mean scores for the sample was 3.80 (SD = 1.99). 170 patients had no adverse outcome with a mean score of 3.52 (SD = 1.86). Re-bleeding occurred in 9 patients with a mean score of 6.11 (SD = 2.26). There were 12 deaths with a mean score of 6.00 (SD=1.04). The difference between these 3 groups were compared with one way ANOVA and was found to be statistically significant, $p < 0.001$. 6 patients had a Rockall score of ≥ 8 and of these 3 (50%) re-bled and 3 (50%) died. Of the 185 patients with scores of ≤ 7, 6 (3.2%) re-bled and 15 (8.1%) died. The difference between these groups was statistically significant by Fischer's Exact test, $p = 0.001$ for re-bleeding and $p = 0.012$ for death. All patients scoring < 3 had favourable outcomes.

CONCLUSION

The Rockall risk assessment score is useful in predicting adverse outcome (re-bleeding or death) among patients admitted for non-variceal UGIB.

FP 23

PREVALENCE OF GASTROOESOPHAGEAL REFLUX DISEASE SYMPTOMS IN BRONCHIAL ASTHMA PATIENTS IN SABAH

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OBJECTIVE

A high prevalence of gastroesophageal reflux disease (GERD) symptoms in bronchial asthma patients has been shown in several studies. The aim of this study is to ascertain prevalence of GERD symptoms in local population asthmatics.

METHODOLOGY

A standard questionnaire survey was conducted from June 2005 to February 2006, on 200 asthmatics and 200 non-asthmatics (controls) seen at outpatient clinic. Data were analyzed using SPSS® v12 statistical software for Windows®. We utilized student's t-test, Chi-square analysis, Standard Deviation and accepted a p-value < 0.05 as statistically significant.

RESULTS

A total of 200 bronchial asthma patients (100 male and 100 females, mean age 39) and 200 healthy control subjects were included in the study. The prevalence of heart burn and regurgitation (GERD symptoms) in asthma subjects (29.5% and 25%, respectively) was not significantly different compared to controls (21.5% and 29%, respectively, $p = 0.066$ and 0.368). Furthermore, asthma symptoms and the need for inhaled bronchodilators did not increase in presence of GERD symptoms among asthma patients (28.8% and 22%, respectively). Interestingly, we found that asthmatics are more likely to suffer respiratory symptoms after a large meal (asthma patients 7%, controls 0%, $p < 0.001$), alcohol consumption and caffeine intake ($p < 0.001$ each), or if they lied down within 2 hours after eating ($p < 0.001$). Statistical analysis showed that asthmatics on inhaled steroids has less heartburn episode ($p = 0.016$) and asthmatics on inhaled β-agonists also has less regurgitation episode ($p = 0.002$). Among the medications used, antacids and H2-receptor antagonists usage in asthma group is higher (p value 0.019 and 0.018 respectively).

CONCLUSIONS

Our results suggest that local population of asthmatics have no significant prevalence of GERD symptoms compared to controls contrary to expectation. This may be due to inadequate sample size. However, asthmatics on treatment with inhaled steroids and inhaled β-agonists have less GERD symptoms. Anti-reflux medications used more by asthmatics may explain reduced GERD symptoms in asthmatics. This will need to be studied further with a bigger sample size to further clarify the relationship between asthma and GERD in our local population.

FP 24

AN AUDIT OF PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG) COMPLICATIONS IN A LARGE TEACHING INSTITUTION

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BACKGROUND

Percutaneous endoscopic gastrostomy (PEG) is an established technique for enteral feeding. Although this procedure is widely practiced in Malaysia, local data on complications are lacking.

METHODS

A retrospective review was performed on all PEGs performed at this institution from 2002 – 2005. All patients/ carers were additionally contacted by telephone to avoid recall bias.

RESULTS

A total of 188 patients (mean age 57.6 ± 20 years) had new PEGs inserted over 3 years. Indications for PEG feeding included stroke disease (n = 121), sub-dural haemorrhage (n = 10) and various other neurological diseases (n = 57). 147 (78%) PEGs were inserted in in-patients. 92% of cases received antibiotic prophylaxis. Complications (early and delayed) were as follows: peri-stomal infections n = 52 (27.7%), gastric ulceration with haemorrhage n = 2 (1.1%), pneumoperitoneum n = 1 (0.5%) and buried-bumper syndrome n = 1(0.5%). 1 (0.5%) mortality was related directly to a PEG complication (pneumoperitoneum). When compared to patients without complications, cases with peri-stomal infections were older (mean age 61.9 vs 55.9, $p = 0.05$), had more stroke disease (83.7% vs 61.1%, $p = 0.004$) had a higher rate of diabetes (52% vs 28.8%, $p = 0.003$) and required a longer in-patient stay (18.9 ± 21 days vs 0.3 ± 3 days, $p < 0.0001$). 80% of peri-stomal infections were treated with antibiotics and 21 (42%) cases required a PEG change. Regression analysis revealed age (OR 1.00, 95% CI = 0.97,1.03) and period of hospitalization (OR 1.37, 95% CI = 1.20,1.56) as independent risk factors for peri-stomal infections.

CONCLUSION

Peri-stomal infections are a common PEG complication and our rates are comparable to published literature. However, they exert a considerable clinical and economic burden. Rigorous adherence to antibiotic prophylaxis tailored to local organisms is required.

FP 25

TRANSNASAL ENDOSCOPIC PLACEMENT OF NASO-ENTERIC FEEDING TUBES IN NON-ICU PATIENTS: EARLY EXPERIENCE WITH A NOVEL ENDOSCOPIC TECHNIQUE

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BACKGROUND

Placement of naso-enteric feeding tubes are notoriously difficult or cumbersome. Recent reports of a novel endoscopic placement method using a transnasal approach has shown promise. We report our experience with this method in non-ICU patients.

METHODS

All cases referred to this unit for naso-enteric placement were prospectively reviewed. Transnasal endoscopy was performed using an ultra-thin Olympus GIF-XQ 160 gastroscope and a guide-wire passed through the scope into the duodenum. A 10 Fr naso-jejunal (NJ) tube was then placed directly into the small intestine over the guide wire. All tube positions were checked by fluoroscopy.

RESULTS

Between January 2005 and May 2006, 22 patients (median age 62.5 years; range 20 – 83) were referred for NJ tube placement. Indications were as follows: Gastroparesis n = 4, duodenal stenosis n = 3, persistent gastro-cutaneous fistulae n = 6, aspiration post surgery n = 1, pancreatitis n = 3. Placement of NJ tubes beyond the duodenum was successful in 19/ 22 (86.3%). Failure of placement occurred in 2 cases of malignant duodenal stenosis and one patient with a gastro-cutaneous fistula. NJ tubes were held in place for a median time of 24 days (range 2 – 94), where placement was successful. Outcomes of the NJ feeding were as follows: complete healing of 5/6 gastro-cutaneous fistulae, successful establishment of feeding in all cases of pancreatitis, gastroparesis and 1/3 patients with duodenal stenosis.

CONCLUSION

Transnasal endoscopic placement of NJ tubes is an effective method for establishing enteral feeding in non-ICU patients. Our experience suggests that the indications can be quite varied, although cases of duodenal stenosis remain a technical challenge.

FP 26

BILIARY TUBERCULOSIS: UNCOMMON CAUSE OF OBSTRUCTIVE JAUNDICE

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A case of 39 year old retroviral positive man with obstructive jaundice and prolonged fever is reported. Ultrasound of hepatobiliary system showed dilated common bile duct and ERCP examination revealed strictured distal bile duct. Biliary Tuberculosis was confirmed by ERCP and endoscopic brushing of the strictured segment of bile duct. Acid-fast bacilli were detected in direct smears. Not many cases of biliary stricture due to Tuberculosis have been reported previously. Although Tuberculosis is extremely uncommon to cause obstructive jaundice, this case illustrates the importance of including this disease in the differential diagnosis especially among HIV positive individual.

FP 27

HEPATITIS B SEROCONVERSION IN POST-VACCINATED HEALTHCARE WORKER IN MALAYSIA

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OBJECTIVE

Hepatitis B infection as a form of nosocomial infection among health care workers was a recognized issue requiring attention. This pilot study conducted in our centre is among the first in Malaysia looking into the seroconversion rate among healthcare workers post vaccinated with hepatitis B vaccine and its associated features.

METHODOLOGY

A single centre, cluster- randomized, cross sectional study examining the seroconversion rate among healthcare workers vaccinated with hepatitis B vaccine in a government hospital in Malaysia since 1989. All specimens sampled were first analysed for serum anti-HBs level and reported in mIU/mL unit. Samples were re-analysed for anti-HBc level in significant cases. Statistical analysis was performed using SPSS® statistical program version 12.0. Significant p-value is < 0.05.

RESULT AND DISCUSSION

A total of 166 subjects were selected from the nursing population currently serving in a Tertiary Ministry of Health Hospital in Malaysia. The respond rate was 72.28%, 120. All respondents were female by random selection. The mean age is 32.62 years (SD: 7.12 years, range: 24 – 54 years; 95% CI: 18.38 – 46.86 years). Most of them were clustered at age 25-29 years (43.3%), followed by age ranging from 30 – 34 years (25.0%). The overall seroconversion rate for hepatitis B vaccination is 68.3% (82 subjects). Other study shows a seroconversion rate of 82.4%*. Majority of our seroconverted subjects were low responders (74 subjects; 61.7% with anti-HBs titres of 10-500 mIU/mL).* Comparing serologic *protective level**, there was no significant different in association with the *number of vaccination* (p = 0.271). *Duration of post initial vaccination* does not affect the *level of antibody production level* (p = 0.191).

CONCLUSION

Non-responders may need special attention their work setting. Maintaining antibody level above 10 mIU/mL* is not essential for lifetime protection with better understand of the role of memory B lymphocytes*. This study gives a unique perspective into providing clinical data from among the people residing in Malaysia.

***REFERENCE**

FP 28

A COMPARISON OF FIBROSCAN (TRANSIENT ULTRASOUND ELASTOGRAPHY) AND LIVER BIOPSY RESULTS IN THE ASSESSMENT OF FIBROSIS AND CIRRHOSIS IN PATIENTS WITH CHRONIC LIVER DISEASE

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OBJECTIVES

An accurate and reproducible non-invasive measurement of liver fibrosis would be clinically helpful. This study compares the Fibroscan (transient ultrasound elastrography) and liver biopsy results for the assessment of fibrosis and cirrhosis in chronic liver disease.

METHODOLOGY

28 patients with recent liver biopsy had FibroScan performed.

Aetiologies : Hepatitis C (n = 16), Haemachromatosis (n = 6), Other (n = 6).

RESULTS

26 of 28 patients had 10 valid FibroScan readings and thus were suitable for analysis.

The mean FibroScan scores in histological METAVIR stage F0 (n = 12), F1 (n = 5), F2 (n = 4), F3 (n = 2), and F4 (n = 3) were as follows: 7.3 kPa, 6.3 kPa, 8.3 kPa, 6.2 kpa and 58.2 kPa.

CONCLUSIONS

The FibroScan is very well-tolerated and is particularly useful for the identification of cirrhosis. Further studies in different patient groups are required.

FP 29

BILIARY SURGERY IN SEREMBAN HOSPITAL – A 12 YEAR EXPERIENCE

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OBJECTIVES

To determine the pattern of biliary surgery in our hospital within a 12 year prior and after the introduction of Laparoscopic surgery and endoscopic retrograde cholangiopancreaticogram.

METHODOLOGY

A retrospective study was done from 1995 to 2006. Records were taken from our operation theatre registry and Computerized Theater Documentation System (COTDS). We looked at all biliary surgery done prior to introduction of Laparoscopic cholecystectomy and ERCP in 2002 in Seremban Hospital and after. We also looked at the trend of emergency and elective biliary surgery.

RESULTS

A total of 562 patients who were operated for biliary surgery were reviewed during this period. Prior to 2002 there was gradual decline of biliary cases operated on from 1995 to 2001, in which the numbers declined from 75 cases/year to 30/year. After 2002 the numbers increased from 45/year to 65 /year and till May 2006 we have done 55 cases. With regards to the trend of open cholecystectomy against laparoscopic cholecystectomy,there were only 4 cases of lap chole done in 1996 and the rest of gall stone disease was done as an open procedure. After 2002 there was a steady in increase of lap chole from about 35 cases/year to 50 cases/year and till May 2006 we have had 46 cases. Open cholecystectomy has declined from 20cases/year in 2002 to 15 cases in 2005. Elective gall bladder surgery showed a declining trend from 70 cases in 1995 to 18 cases in 1999. There was a gradual increase from 2000 onwards in which there were 24 cases to 53 cases in 2005 and till May 2006 we have had 40 cases. Since January 2006, we have started doing acute cholecystitis as an emergency procedure and till May 2006 we have done 12 cases.

CONCLUSION

A large number of biliary surgery was done in the last 4 years – 52.5% since the introduction of Laparoscopic cholecystectomy and ERCP. More biliary surgery surgeries are done for cholelithiasis after 2002 indicating we offer surgery early before complications set in. Seremban Hospital is now considered a referral centre for Upper GI surgery including biliary surgery.

FP 30

PREVALENCE AND RISK FACTORS OF ANTITUBERCULOSIS DRUG-INDUCED HEPATITIS IN HOSPITAL UNIVERSITI SAINS MALAYSIA

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BACKGROUND

Tuberculosis is one of the major diseases worldwide, affecting about one-third of the world's population. The introduction of antituberculosis drugs decades ago has improved tremendously the outcome of those infected with tuberculosis. Among the drugs, isoniazid, rifampicin and pyrazinamide had been proven to be effective, but not without the side effects, of which hepatotoxicity is the most important. Antituberculosis drug-induced hepatitis has been reported and many risk factors had been recognized.

OBJECTIVES

This case control and observational study was conducted to determine the prevalence of antituberculosis drug-induced hepatitis in Hospital Universiti Sains Malaysia, to determine the risk factors in relation to the development of drug-induced hepatitis as well to observe the clinical course in patients with antituberculosis drug-induced hepatitis.

METHOD

This study examined the evidence of antituberculosis drug-induced hepatitis in patients treated for tuberculosis in Chest Clinic for a period of 30 months from January 2003 until June 2005. Eligible cases of drug-induced hepatitis were selected and compared with controls which were selected by Simple Random Sampling in terms of demographic data and risks involved such as age, gender, body mass index, hepatitis B carrier, HIV infection, sites of tuberculosis, and pretreatment liver biochemistries such as serum albumin, globulin, AST, ALT and bilirubin. The clinical course of patients of hepatitis was also examined in term of onset, severity and duration of hepatitis, as well as the presence of jaundice. Data were evaluated by khi square and independent t test (univariate) and binary logistic regression analysis (multivariate).

RESULTS

A total of 473 patients were registered during the period of the study, 46 patients were noted to have antituberculosis drug-induced hepatitis and eligible for the study. 138 patients were selected as controls. The prevalence of drug-induced hepatitis was 9.7%. Among the risk factors evaluated, the presence of HIV infection (p=0.05), extrapulmonary tuberculosis (p=0.08), lower serum albumin (p=0.023) and higher serum globulin (p=0.025) were noted to be significant at univariate analysis. On binary logistic regression analysis, the presence of HIV infection (p=0.018) and extrapulmonary tuberculosis (p=0.017) were noted to be significant risk factors. Observation of the clinical course of patients who had drug-induced tuberculosis, showed that most of them had mild hepatitis (58.7%) and moderate hepatitis (32.6%). The onset of hepatitis mostly occurred between one to two weeks (32.6%) and two to three weeks (17.4%). The duration of hepatitis was mostly from one week (34.8%) to two weeks (32.6%). The occurrence of jaundice was 32.6 percent.

CONCLUSION

The prevalence of antituberculosis drug-induced hepatitis was 9.7 percent. The presence of HIV infection and extrapulmonary tuberculosis were significant risk factors for the development of hepatitis. Most of the patients who developed antituberculosis drug-induced hepatitis had mild symptoms and signs. Patients with risk factors should be monitored closely for the development of drug-induced hepatitis.

FP 31

CHARACTERISTICS OF HEPATITIS C IN SARAWAK

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OBJECTIVE

To study the characteristics of Hepatitis C patients in the state of Sarawak.

MATERIALS AND METHODS

The medical notes of patients in the Sarawak General hospital who were positive for Hepatitis C antibody were studied retrospectively. The clinical data and the results of the laboratory investigations were analyzed.

RESULTS

A total of 51 patients were included in the study. There were 39 (76%) males and 12 (24%) females. The mean and median age of the patients when hepatitis C was first diagnosed were 36.5 years old (Age range 18 – 61). The ethnic distributions of the patients were 21 (41.2%) Chinese, 19 (37.3%) Malay, 5 (9.85%) Bidayuh, 4 (7.8%) Iban, 1 (2%) Indian and 1 (2%) Kayan. The sources of referral included blood bank 15 (29.4%), renal 8 (15.7%), medical 5 (9.8%, surgery 3 (5.9%), cardiac 2 (3.9%), polyclinic 2 (3.9%), haematology 1 (2%), paediatric 1 (2%), other hospitals 2 (3.9%). The risk factors for hepatitis C infection were identifiable in the medical notes of 29 (57%) patients. They include blood transfusion 9 (17.6%), haemodialysis 8(15.7%), intravenous drug abuse 5 (9.8%), intravenous drug abuse & tattoo 3 (5.9%), intravenous drug abuse & blood transfusion 2 (3.9%), intravenous drug abuse & tattoo & homosexual sex 1 (2%) and tattoo 1 (2%). All the patients who acquired hepatitis C through blood transfusion had their transfusion before 1995. 3 (5.9%) patients have hepatitis B coinfection. Genotyping were done in 17 (33.3%) patients. 10 were genotype 1 and 7 were genotype 3.

CONCLUSIONS

Hepatitis C patients seen at Sarawak general hospital were generally diagnosed at a young age. The biggest source of referral was from the blood bank. The 3 main risk factors were blood transfusion before 1995, intravenous drug abuse and haemodialysis. Genotype 1 was the most common, which pose a challenge to the management of our patients.

FP 32

CLINICO-EPIDEMILOGICAL PATTERN OF LIVER CIRRHOSIS IN KUALA LUMPUR HOSPITAL: A PRELIMINARY REPORT

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INTRODUCTION

Liver cirrhosis is a disease of multi-factorial origin. The morbidity and mortality rate in patients with complications of liver cirrhosis is substantial. This study aims to define the demographic, etiology and complications of liver cirrhosis.

METHODS

This is a cross sectional retrospective descriptive study on patients that were treated for liver cirrhosis or related complications from 1st October 2005 to 31st March 2006.

RESULTS

We analyzed a total of 106 patients with liver cirrhosis with a median age of 53±10.3 (range 24 – 81) years with a male preponderance (74.5%) and ethnic background of Malays (40.6%), Chinese (24.5%), Indians (33%) and foreigners (1.9%). The main etiology were hepatitis C (31.1%), hepatitis B (18.9%), alcohol (26.4%), hepatitis B and C co-infection (0.9%), alcohol and hepatitis C (7.5%), alcohol and hepatitis B (0.9%), cardiac (0.9%) and cryptogenic (12.3%). In this series 11.3%, 5.7% and 9.4% admitted to intravenous drug abuse, sexually promiscuous and a past history of blood/blood product transfusion respectively. The etiology of cirrhosis was predominantly Hepatitis B (35%) and C (37%) among Malays, Hepatitis B (19%) and C (58%) among Chinese with alcohol (63%) and Hepatitis C (23%) among the Indians. The acute presentation were for upper gastrointestinal bleeding (13.2%), ascites (10.4%), spontaneous bacterial peritonitis (19.7%; fever in 9.3% and abdominal pain in 8.5% or both 1.9%) and encephalopathy 2.8%. While 32.1% were electively admitted for eradication of varices. On examination the findings include jaundice (22.6%, ascites (32.1%), splenomegaly (15.1%), hepatomegaly (10.4%) and hepatic encephalopathy (2.8%). Endoscopy revealed Esophageal varix (66.9%), fundal varices (11.3%), gastric ulcers (12.3%), duodenal ulcers (5.7%), gastric erosions (7.5%), portal hypertensive gastropathy (72.6%) and GAVE (0.9%). The severity was classified into Child- Pugh classification notably A (39.6%), B (40.6%) and C (19.8%). In this series the following complications were noted including hepatoma (9.4%), hypersplenism (33%), a history of upper gastrointestinal bleeding (22.6%) and encephalopathy (8.5%). Three deaths were reported during the study period and all were attributed to decompensation secondary to sepsis.

CONCLUSIONS

Liver cirrhosis and its related complications is an important cause of admission and remain as burden of disease to our hospital. Currently hepatitis C is now the prime etiology with a major affliction to the Malays and Chinese ethnic groups, while alcohol remains the major etiology among Indians.

FP 33

A NICHE ROLE FOR ENDOSCOPIC ULTRASOUND: GALLSTONE PANCREATITIS

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BACKGROUND

Timing of ERCP is vital in patients with gallstone pancreatitis in view of the risks involved. Despite the evolution of better imaging modalities especially the high resolution transabdominal ultrasound, CT scanners and MRIs, the assessment small stones in a normal caliber CBD in patients with gallstone pancreatitis remains difficult and challenging.

CASE REPORT

A 41 year old lady was referred for sudden onset severe upper abdominal pain that is relieved by sitting forward since 9 days prior to admission. It was worst on the day of onset with persistent intermittent dull pain. She had no fever or radiation to the back, but there was an associated tea colored urine. Her clinical examination was unremarkable with a negative Murphy's sign. She had an ultrasound which revealed gallstones. Her LFT revealed a slightly raised bilirubin with a markedly raised ALT and slightly raised ALP. Her HBsAg was not reactive. A repeat ultrasound revealed normal intrahepatic and extrahepatic ducts with multiple gallstones without any thickening of the gallbladder wall. She was referred for an upper endoscopy prior to a timed cholecystectomy. In view of the classical history of pancreatitis, an urgent Endoscopic Ultrasound (EUS) was performed which revealed a slender CBD (measuring 4.6mm) with multiple small CBD stone at the lower end. A cholangiogram during immediate ERCP revealed multiple filling defects (stones) which were removed after a moderate sphincterotomy. Her symptoms promptly abated. She subsequently had a timed cholecystectomy.

DISCUSSION

EUS is an excellent diagnostic tool to evaluate the common bile duct and detect stones especially when transabdominal ultrasound and CT scans are unhelpful. This will help triage cases that will benefit from prompt therapeutic ERCP. Many times the culprit stone that induced the pancreatitis especially in a normal CBD has passed and hence placing the patient at risk of complications of unnecessary ERCP. Hence EUS appears to have a niche role in the assessment of gallstone pancreatitis.

FP 34

THE SUSTAINED VIROLOGICAL RESPONSE (SVR) RATE OF OUR GENOTYPE 3 (G3) CHRONIC HEPATITIS C (CHC) PATIENTS TREATED SHORTLY BEFORE THE ERA OF PEGYLATED-INTERFERON

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OBJECTIVE

Genotype 3 CHC is common in Malaysia and has high response rate to treatment. The objective of this study is to assess the SVR of treatment-naïve G3 CHC patients in our hospital treated with conventional interferon-alpha-2b and ribavirin in the last 2.5 years before the introduction of pegylated-interferon.

METHODS

We reviewed the electronic medical records of the last 52 consecutive G3 CHC patients treated with conventional interferon-alpha-2b and ribavirin in our hospital. Demographic, baseline characteristics and response rates were analysed.

RESULTS

The mean age is 39.3 years old (24 – 55) with male to female ratio = 2.05:1 (39/52: 19/52) and 26.9% malays, 55.7 % chinese, 17.4 % indians. The mean body weight is 66.4 kg (48 – 93).

Two patients had significant history of alcohol consumption and 4 patients were diabetics. The baseline HCV RNA (Cobas Taqman) level were > 500,000 IU/ml or > 600,000 IU/ml in 48 % of patients. Liver biopsies were done in 47 patients and 27.7% had advanced fibrosis of F5 or F6 using Modified HAI Grading. Steatosis was present in 97.9% of patients. 7 patients required either interferon or ribavirin dose reduction. 1 patient required both because of haemolysis and thrombocytopenia.

The SVR was 82.7%. In those patients who did not achieve SVR, 0.04% relapsed and 13.5% were non-responders.

CONCLUSION

In our patients with treatment-naïve G3 CHC, treatment with conventional interferon-alpha-2b and ribavirin patients give high SVR. This regimen does not seem to compromise the response rate in our hospital.

FP 35

POST ERCP PANCREATITIS IN HOSPITAL RAJA PEREMPUAN ZAINAB II: A ONE YEAR RETROSPECTIVE STUDY

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A Retrospective study of post ERCP pancreatitis in the last one year were retrospectively reviewed via medical reports. The main indications were choledocholithiasis followed by assessment of dilated common bile duct and cholangitis.

Pancreatitis remained the most feared complication of ERCP however ERCP is still a safe procedure with no mortality encountered.

FP 36

INDICATIONS FOR ERCP IN THE KUALA LUMPUR HOSPITAL – ARE WE FOLLOWING GUIDELINES?

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BACKGROUND

The gastroenterology Unit receives referrals for ERCP from various medical and surgical units, ICU, oncology as well as referrals from elsewhere.

AIM

To audit the ERCP cases that were done in this hospital and assess if they conform to established guidelines.

METHOD

ERCP cases performed from 1st July 2005 to 28th February 2006 were reviewed. The indications were compared to the current ASGE guidelines for ERCP.

RESULTS

A total of 150 cases were reviewed. The average age of patients was 50.5±15.4 (range 18 – 87) years with an almost equal gender predisposition (74 males vs 76 females) and racial composition comprising 96 (64%) Malays, 30 (20%) Chinese, 15 (10%) Indians and 9 (6%) foreigners. The most common indications were bile duct stone removal in patients with previous ERCP and stent insertion (60 patients, 40.7%), jaundice due to biliary obstruction in 38 (25.3%), followed by 32 (14.7%) who required endoscopic sphincterotomy and pancreatic malignancy (not including ampullary carcinoma) in 4 (2.7%). There were 2 patients (1.3%) in whom ERCP was not indicated. Biliary stones was the most common diagnosis (78 patients, 52%) followed by bile duct strictures in 24 (16%). 28 (18.7%) had normal bile duct anatomy. It was the first ERCP for 92 (61.3%) patients and 59 (39.3%) had stent placement done. The most common reason for stent insertion was for bile duct stones that could not be completely removed (47 patients, 79.7%) in the first attempt.

CONCLUSION

The vast majority of our ERCP indications conform to guidelines. We had a significant proportion of patients who underwent repeat ERCPs – this may be because of our patient population, many of whom present with multiple bile duct stones and cholangitis.

FP 37

INCIDENCE OF PANCREATITIS AFTER ERCP PROCEDURE: AN EXPERIENCE IN ENDOSCOPY UNIT, HOSPITAL RAJA PEREMPUAN ZAINAB II, KOTA BHARU, KELANTAN

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BACKGROUND

Elevated serum Amylase post ERCP procedures is common. However the incidence of Acute Pancreatitis is varies from centre to centre. We analysed ERCP cases in our centre to estimate the incidence of Acute Pancreatitis in our centre.

MATERIALS AND METHODOLOGY

100 records of ERCP cases done in 2005 from Endoscopy Unit, Hospital Raja Perempuan Zainab II (HRPZ II) Kota Bharu Kelantan were randomly reviewed. Several parameters which include demographic data, indication for ERCP and serum amylase post ERCP were reviewed.

RESULTS

100 ERCP cases were analysed. The mean age of patient is 53 (range 27 – 81), 17.5% were male and 82.5% were females. The main indications for ERCP were Choledocholithiasis (45%), Dilated CBD of unknown etiology (12.5%), Cholangitis (12.5%) and Others (30%). Only in 2 out of 40 cases (5%) had evidence of Acute Pancreatitis. All of them were managed conservatively and there was no mortality.

CONCLUSIONS

Acute Pancreatitis is a recognized complication of ERCP procedure. In our series with 100 ERCP procedures we only experienced 5% incidence of acute pancreatitis.

FP 38

A STUDY TO IDENTIFY THE RISK FACTORS AND CONTRIBUTING FACTORS FOR DEVELOPING ANTITUBERCULAR TREATMENT INDUCED HEPATITIS AMONG PATIENTS IN HOSPITAL ALOR STAR

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Apart from infectious or viral hepatitis, other most common non-infectious causes of hepatitis are alcohol, cholestasis, drugs and toxic materials. Liver damage caused by drug ingestion, known as drug-induced hepatotoxicity has become an important public health problem, contributing to more than 50% of acute liver failure cases., a fraction of whom require immediate transplantation because of the irreversible damage to their liver.

OBJECTIVES

The objectives of this study are to determine the contributing and co morbid factors that predispose a patient receiving antitubercular medication to drug induced hepatitis and to compile data on the factors contributing to patient susceptibility to develop drug induced hepatitis for future studies.

METHODOLOGY

This is a cross sectional nested retrospective study involving patients in Hospital Alor Star who have developed drug induced hepatitis while being on antitubercular treatment for three years (2002 - 2004), out of which 38 cases were identified from the hospital records of the Chest department of Hospital Alor Star, and a further 38 controls who were on treatment in the corresponding period whom did not develop hepatitis.

RESULTS

Analysis was made using SPSS for 14 variables and we found that BMI ($p < 0.001$), albumin ($p = 0.001$), isoniazid dose per kg ($p = 0.02$), ethnicity ($p = 0.02$), HBV ($p < 0.001$), HCV ($p = 0.02$) were significant risk factors while gender ($p = 0.821$), age ($p = 0.165$), pyrazinamide dose per kg ($p = 0.236$), rifampicin ($p = 0.362$), streptomycin dose ($p = 0.064$), HIV ($p = 0.816$), alcohol intake ($p = 1.000$) and CXR severity ($p = 0.171$) were not significant.

DISCUSSION

Even though our findings agreed with a majority of other studies that had been done, there were some discrepancies such as pyrazinamide and rifampicin dose per kg, HIV and alcohol intake being insignificant in our population while ethnicity was significant, we feel that it can be explained by the fact that our sample size was small and there were some skewness which could have made our data different. However, the majority of the risk factors do agree with the other studies that had been done in other countries and we feel that this local data will help in planning out future studies to minimize effects of known risk factors of anti tubercular induced risk factors.

FP 39

PREVALENCE AND PROFILES OF ULCERATIVE COLITIS IN BRUNEI DARUSSALAM

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INTRODUCTION
Ulcerative colitis (UC) is a common inflammatory bowel disorder in the West and less common in the East. It is known to affect certain ethnic group more than the others. We review the prevalence, profiles and outcomes of our patients with UC.

METHODS
All patients with confirmed UC were retrospectively identified and reviewed.

RESULTS
There were 18 patients (male: 11) with a median age at diagnosis of 41 years old (range 12 to 61) identified. The overall prevalence rate was 6.2/100,000, highest among the Chinese (15.9/100,000) compared to the Malays (4.6/100,000). There was no case among the indigenous group. Fifty percent of the cases were diagnosed in the last five years. Only one patient had a family history of UC. The median delay between symptoms onset to diagnosis was 6 months (range 2 days to 72 months). The most common presenting symptoms were loose stool mixed with blood and abdominal pain. At presentation, majority had mild disease (mild (94.4%) and moderate (5.6%)) and disease extend by endoscopy was involvements up to sigmoid (55.5%), splenic flexure (33.3%) and transverse colon (11.1%). At a median follow up of 53 months (range 8 to 300), 83.3% had static disease or regression. Only two patients had disease progression and neither had progression to pan-colitis. Extra-colonic involvements (16.6%) were uncommon, consisting of joints involvements (11.1%) and small duct primary sclerosing cholangitis (5.6%). All were managed medical therapy and no surgical interventions were required.

CONCLUSIONS
UC is common among our Chinese population and there is indication of increasing prevalence. Clinical symptoms were similar to those reported, however, the diseases profiles tended to be mild at presentations and disease progression is uncommon.

FP 40

SWEET'S SYNDROME – AN EXTRAINTESTINAL MANIFESTATION CROHN'S COLITIS

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A case of Sweet's syndrome in association with Crohn's disease in a young woman is reported. Sweet's syndrome is a rare extraintestinal manifestation of Crohn's colitis.

A 38-year-old lady presented with 2 weeks history of diarrhea. It was loose stool with mucus and non bloody. She experienced low grade fever and malaise over this period. There were no history of bloated abdomen, pain or vomiting. She had marked loss of weight (6 kilogram in 2 weeks). She also complaint of multiple painful oral ulcer and skin sores on the wrist. Colonoscopy examination showed multiple deep linear ulceration with cobble stoning appearance starting from descending colon to caecum, sparing the rectum and terminal ileum. Multiple biopsy taken and consistent with Crohn's colitis. Skin biopsy was done and showed extensive neutrophilic infiltration in the dermis, predominantly in the perivascular region with granuloma and immunofluoscence studies were negative. The finding was consistent with Sweet's syndrome. This case a skin rash as part of Sweet's syndrome concurrent with the first episode of Crohn's disease of the colon. Sweet's syndrome may be considered one of the extraintestinal manifestations of Crohn's disease. Early diagnosis of this dermatosis may be important because of the prompt response to treatment with corticosteroids.

FP 41

AN ALTERNATE METHOD OF TREATMENT FOR INTERNAL HAEMORRHOIDS – HAEMORRHOIDAL ARTERY LIGATION

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Haemorrhoidal disease is a common social problem that is embarrassing for the long suffering patient and despite therapy often recurrent. Various treatments for internal haemorrhoids (1) including conventional open haemorrhoidectomy, stapled haemorroidectomy, cryotherapy, injection sclerotherapy, rubber band ligation and electrocoagulation have met with variable success but with complications that include significant postoperative pain, bleeding and haemorrhoidal recurrence. This presentation looks at an alternative method of treating first and second degree haemorrhoids by Haemorrhoidal artery ligation (HAL) with the aid of HAL-Doppler ultrasound proctoscope. The technique is easy to learn and is associated with little postoperative complications. Moreover, the operation can be carried out as a daycase procedure and the patient can return to work the following day (1,2,3).

At the University of Malaya Medical Center (UMMC) 30 patients in the last 12 months who have presented with bleeding haemorrhoids have been treated by this procedure safely and without difficulty nor complications.

KEY WORDS

Haemorrhoids, haemorrhoidal artery ligation (HAL), HAL-Doppler ultrasound proctoscope

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FP 42

A STUDY OF GENE EXPRESSION OF VEGF IN NORMAL AND CANCEROUS COLON TISSUES OF SELECTED PATIENTS

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In Malaysia, colon cancer accounted for 7.6% of male cancers and 6.0% of female cancers, making it the third most common cancer. The colonic cancer incidences per 100,000 population were 7.4 and 7.7 for male and female respectively[1]. For many years, treatment options for colorectal cancer were limited to primary surgical therapy, chemotherapy, and radiotherapy[2].

One of the recent FDA-approved drugs for treatment of colorectal cancer is Avastin (bevacizumab), a monoclonal antibody, which targets and inhibits endogenous Vascular Endothelial Growth Factor (VEGF), thus inhibiting angiogenesis. Antiangiogenic therapy is currently the main focus of anticancer treatment research. Because VEGF is the key regulator of angiogenesis, most antiangiogenic therapeutic agents undergoing research target the VEGF pathway.

Nevertheless, there are still gaps in contemporary knowledge regarding VEGF and angiogenesis. For instance, VEGF-A, which is the prototype of the VEGF family, is known to exist in 6 isoforms due to alternative splicing[3]. Very little is known about the isoform $VEGF_{165b}$, which was discovered in 2002[4].

In this study, we obtained normal and colorectal cancer samples from 12 patients who underwent surgery at UMMC. Messenger RNA was extracted from the tissue samples and quantitative real time PCR was performed to determine the relative expression levels of VEGF. Preliminary data shows that 4 isoforms of VEGF were expressed in both normal and cancerous tissues. They are $VEGF_{121}$, $VEGF_{165}$, $VEGF_{121b}$, and $VEGF_{165b}$. Preliminary quantitative analysis has shown that VEGF is more highly expressed in colorectal cancer tissues, compared to normal tissues in 8 out of the 12 samples.

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FP 43

LONG SEGMENT HIRSCHSPRUNGS DISEASE (HD) IN IDENTICAL TWINS

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AIM

To report the first set of identical twins with Long Segment Hirschsprung's disease in the literature.

CASE REPORT

A set of male identical twins spontaneously delivered per vaginum at term weighing 2.6 and 2.5 kg were referred on day 5 of life, for symptoms of bowel obstruction (Figure 16) and failure to pass meconium from day 2 of life. Both the twins were started on feeds from birth. Both the twins had Barium enema, and it showed foreshortened colon and there was retention of barium at 24 hours (Figures 17). Both children responded to rectal washouts. A rectal suction biopsy confirmed the diagnosis of HD. Barium meal and follow-through showed delayed passage of barium from the ileum to colon and retention of barium for more than 48 hours (Figure 18). Both twins developed enterocolitis, abdominal distension and bowel obstruction. After stabilization, laparotomy was performed. Twin 1 had HD involving the entire colon and distal 15 cm of the terminal ileum (Figure 19). In Twin 2, the aganglionic segment was extending up to the mid-ileum. Ileostomy was performed for both twins. Twin 1 recovered earlier and is on full oral feeding. He underwent total colectomy and low ileo-rectal anastomosis at 8-month of age and is currently feeding and thriving well. Twin 2 had a stormy post-operative phase with recurrent pneumonia, fungal (Candida tropicalis) and bacterial sepsis. Since there was no improvement, a laparotomy was performed and the distal aganglionic bowel was resected. He underwent ileo-rectal anastomosis at 1-year of age. He recovered well with enteral and parenteral nutrition at home. Twin 2 is smaller (shorter) due to the extent of intestinal involvement by the disease.

DISCUSSION

We were unable to trace the occurrence of Long-segment HD in identical twins in the literature. This is perhaps the first report of Long-segment HD in monozygotic identical twins. There are only two reports in which both twins were affected & they had Short-segment HD. Popper reported a pair of female twins & Bodian et al reported a pair of monozygotic twin boys affected by Short-segment HD. The calculated risk of HD affecting both twins (identical) is in the order of 1 in 14 million.

FP 44

THE PATTERN OF COLONIC POLYPS IN KUALA LUMPUR HOSPITAL

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INTRODUCTION

Colonic polyps are a group of lesions projecting above the surface of the colonic mucosa. The clinical significance of polyps is defined by their histologic classification. Not all polyps are neoplastic nor are all polyps benign. Adenomatous polyps have a well documented relationship to colorectal cancer. This study aim to define the demographic, indications and the histologic classification of patients who undergone colonoscopy.

METHODS

This is a retrospective descriptive study on all patients who has colonic polyps detected at colonoscopy from 1st October 2005 to 31st May 2006.

RESULTS

We analyzed a total of 92 patients with a median age at 61.5 +/- 10.3 (range 32 – 84) years with a male preponderance (70.7%) and an ethnic background of Malay (29.3%), Chinese (53.3%), Indians (15.2%) and others (2.2%). The main indications for colonoscopy were colorectal cancer screening (27.2%), altered bowel habit (25%), anemia (18.5%) and per rectal bleeding (10.9%). Colonoscopy was completed till the caecum and terminal ileum in 87% and 10.9% of cases respectively. Bowel preparation was satisfactory in 81.5% of cases. Sessile polyps with size less than 1 cm was detected in 82.6%. Pedunculated polyps with size less than 1 cm was detected in 6.5% and more than 1 cm in 4.3% of cases. A flat polyp with size less than 1 cm was detected in 5.4% of cases. The polyps were located in the rectum (20.7%), sigmoid colon (17.4%) descending colon (13%), transverse colon (5.4%), ascending colon (5.4 %), caecum (4.3%) and the remaining were located in two or more different sites in the colon. Rectosigmoid polyps constitute 62% of all polyps in this series. Histology of the polyps consists of hyperplastic (45.7%), tubular adenoma (32.6%), tubulovillous (3.3%), inflammatory (11.9%) and normal mucosa (6.5%) one out of the three tubulovillous polyps was severely dysplastic. Adenocarcinoma was detected in 3 patients (3.3%) and tuberculous colitis in 2 patients (2.2%).

CONCLUSIONS

Malaysian of the Chinese ethnicity had the highest rate of colonic polyps (53.3%) despite being only 29% of the endoscopy attendees in our unit. Poor bowel prep was the major contributor for incomplete colonoscopy. Most of the polyps were located in the rectosigmoid colon.

FP 45

THE CLINICO-EPIDEMIOLOGICAL PATTERN OF HEPATITIS C IN A TERTIARY CARE HOSPITAL IN MALAYSIA: THE KUALA LUMPUR HOSPITAL EXPERIENCE

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BACKGROUND

Hepatitis C is an emerging health problem in Malaysia and is currently one of the leading causes of chronic liver disease. This study is to define the clinico-epidemiological pattern of hepatitis C in our clinical practice.

METHODS

This is a retrospective cross-sectional descriptive study of patients referred to our Gastroenterology Clinic in view of an assessment for treatment of hepatitis C. Data was collected from 1st Jan 2005 till 15th May 2005.

RESULTS

A total of 182 patients with a mean age at detection of 37.5±12.7 (range: 9 – 69), 56% ≤ 40 years and 5% > 60 years with 97 Malays (53.3%), 61 Chinese (33.5%), 20 Indians (11%) and 4 foreigner (2.1%) with a male preponderance (75.3% males). Interestingly 60% of patients were detected after blood donation or a medical health screening and 80% of the patients were asymptomatic. The most common risk factor for acquiring hepatitis C was a past history of blood transfusion (32.6%) followed by intravenous drug abuse (24.7%), factor transfusion in hemophiliacs (13.7%) and sexual transmission (7.1%), while 15.9% had no known risk factor. In terms of co-morbid conditions 26 patients had hemophilia (14.3%), 8 thalassemia (4.4%), 21 diabetes mellitus (11.5%), 19 hypertension, six end state renal failures, 9 coinfection with Hepatitis B and 5 coinfection with HIV. Patient's weight was 66±12 (range: 48 – 92) kg, 7% ≥ 85kg. A total of 28% and 18% had platelet counts below 150 and 100 x 10^{9}/l respectively while 17% had serum albumin below 35 gm/L. Among the 77 patients with viral load tested, 35 patients had viral load < 500,000 (45.5%) while 31 had viral load > 800,000 IU/mL (40.3%). A total of 91 patients had their Genotyping done consisting of Genotype 1a (14.3%), 1b (17.6%), 2a (2.2%), 3a (64.8%) and 3b (1.1%). Eighteen patients had features of cirrhosis on ultrasound. Esophageal varices were detected among 13 patients. A total of 59 liver biopsies were available for scrutiny. Fibrosis scoring based on the METAVIR scoring system was available in 24 patients (F0: 12.5%, F1: 54.2%, F2: 8.3%, F3: 12.5%, F4:12.5%)1 A total of 74 patients were treated with interferon therapy (completed or currently undergoing therapy); 42 with combination pegylated interferon plus ribavirin, 30 with conventional interferon with ribavirin and 2 with conventional interferon monotherapy. Five patients were treated with pegylated interferon after failing conventional interferon.

CONCLUSION AND DISCUSSION

Hepatitis C appears to be a significant health burden in our population with preemptive screening especially among those who had received blood and blood products. Our patients seem to have favorable factors for treatment including Genotype non 1, low serum HCV RNA levels, younger age, lighter body weight, minimal degree of fibrosis and the majority is treatment naïve patients. Despite being an effective treatment, combination pegylated interferon and ribavirin is costly, need to be administrated for a substantial duration and considerable side effects.

FP 46

OUTPATIENT MONITORING OF LIVER FUNCTION TEST (LFT) TWO TO FOUR WEEKS AFTER THE INITIATION OF ANTITUBERCULOUS THERAPY (ATT): A CHEST CLINIC'S EXPERIENCE

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AIM

To verify the yield and usefulness of repeat liver function test at outpatient clinic two to four weeks after patients initiation of ATT.

METHODOLOGY

We revised the medical records of all patients (n = 269) registered with Tuberculosis clinic between November 2003 to March 2006. Eighty one patients who stayed in ward more than 2 weeks and those who did not have repeat liver function test 2 to 4 weeks at Selayang Hospital were excluded. The remaining 188 patients were recruited. The epidemiological data, drug regimens used, outcome of repeat liver function test and doctor's actions towards worsening in liver functions were analysed in the remaining 188 patients.

RESULTS

The median age is 37.5 years old (ranges from 14 to 80) and 61.2% (123) are male. There are 65.4% (112) Malays, 23.9% (45) Chinese, 5.3% (10) Indians and other 5.3% (10). The major sites of involvement are lungs(81.9%). Ninety five percent patients received EHRZ regimen. Thirty three (17.6%) out of 188 patients had worsening LFT. Twenty (10.6%) had worsening alkaline phosphatase (ALP) level, thirteen (6.9%) had rise in alanine transferase (ALT) and four (2.1%) had both ALT rise and worsening of ALP. Four had ALT 1-2 of upper normal limit (ULN), nine had ALT 2-5X ULN and four had ALT > 5X ULN. Eleven (5.9 %) out of 188 patients had their anti-TB drugs stopped, re-challenged or referred to National Respiratory Center.

CONCLUSION

Repeat LFT at 2 – 4 weeks after starting of ATT is useful and it detected abnormalities of LFT in 17.6% of patients. One third of these patients had to have their management changed due to the LFT abnormalities.

FP 47

ENDOSCOPIC ULTRASOUND REDUCES THE NEED FOR ERCP IN PATIENTS WITH SUSPECTED GALLSTONE PANCREATITIS

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Endoscopic retrograde cholangiopancreatogram (ERCP) is regularly performed in patients with suspected gallstone pancreatitis even if abdominal ultrasound does not show choledocholithiasis or a dilated common bile duct.

As the mortality and morbidity associated with ERCP is considerable, endoscopic ultrasound (EUS) could play an important role in preventing an unnecessary procedure.

OBJECTIVE
The objective of this study is to determine the percentage of gallstone pancreatitis patients who were spared from undergoing an ERCP by having an EUS first.

METHOD
We reviewed the electronic medical records of the 33 consecutive patients who underwent EUS for suspected gallstone pancreatitis.

RESULT
Out of the 33 patients, only 6 (18.2%) proceeded to ERCP. The other 27 or 81.8% were spared ERCP because EUS did not show choledocholithiasis or a dilated common bile duct. Out of the 6 which EUS showed choledocholithiasis, only 2 were picked up by abdominal ultrasound. In one patient, abdominal ultrasound showed choledocholithiasis but EUS showed a normal CBD with no choledocholithiasis. This particular patient was also spared from an ERCP. All 33 patients went on to achieve full recovery and were discharged well without recurrence of acute pancreatitis during the same admission. Subsequent cholecystectomy was planned for patients with gallstone, gallbladder sludge or choledocholithiasis.

CONCLUSION
EUS is an important modality which should be introduced into the algorithm for the investigation of patients with suspected gallstone pancreatitis.

FP 48

ULTRASTAGING COLORECTAL CANCER WITH INTRAOPERATIVE METHYLENE BLUE SENTINEL LYMPH NODE MAPPING AT UNIVERSITY OF MALAYA MEDICAL CENTRE (UMMC)

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BACKGROUND

The sentinel lymph node (SLN) concept enables detailed analysis of lymph nodes harbouring the highest risk of metastatic disease. Methylene blue is as effective as isosulfan blue, but less expensive with a much lower risk of anaphylaxis / side effects.

METHODOLOGY

Methylene blue dye was injected subserosally around colonic tumours after intraoperative mobilization. The dye was injected via a proctoscope for rectal tumours below the peritoneal reflection. The first blue-stained nodes were suture-tagged and harvested after standard colonic/rectal resection. A standard histopathological examination was then performed for both the resected specimen and SLNs.

All negative SLNs were subjected to detailed microlevel sectioning and immunoperoxidase studies for cytokeratin.

RESULTS

At time of writing, only conventional H & E staining, and no cytokeratin/step sectioning has been performed. There are 6 patients whose conventional HPE reports were not yet available.

22 patients were enrolled from 30 August 2005 to 30 April 2006. There were 9 rectal and 13 colonic tumours. 31 SLNs were identified (median of 1 node/patient), and 124 Other Lymph Nodes examined (range of 0 – 14, median of 5 nodes/patient).

18 attempts at identifying the SLN were successful (82%). 6 were Rectal, and 12 were Colonic tumours (success rate 67% for rectal, and 92% for colonic tumours). 40% of rectal tumours using dye injection via proctoscopic view were successful.

8 (44.4%) patients had Stage II disease. 10 (55.6%) had nodal metastases (Stage III). Of these 10, 3 had negative SLNs but positive OLNs (false-negative rate of 3/22 or 13.6%). One had only the SLN positive; while the rest (6) had both positive for metastases.

DISCUSSION

The overall rate of SLN detection (82%) compares favourably with other studies.[1-8] There is a high false-negative rate (13.6%) on conventional H & E staining in detecting stage III CRC. This preliminary result without step sectioning/cytokeratin staining must be interpreted with caution. The poor results in proctoscopic injections (40% successful) warrants a more effective method. Further results will be obtained when more patients are recruited and step sectioning/cytokeratin-staining performed.

FP 49

MUTATIONS IN NOD2/CARD15 GENE IN CROHN'S DISEASE: EXPERIENCE IN AN ASIAN POPULATION

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INTRODUCTION

The NOD2/CARD15 gene is one of the most important susceptibility genes in Crohn's disease (CD) in the Western population but the three major risk alleles identified (R720W, G908R, 1007fs) are not present in the Far East. However, there have been no studies carried out in other ethnic races in Asia.

AIM

To determine if NOD2/CARD15 gene polymorphisms are present in our population.

METHODS

33 patients with CD, 23 patients with ulcerative colitis (UC) and 150 normal controls were included. Baseline patient characteristics including ethnic group was recorded. In CD patients, phenotype of the disease was also documented according to the Vienna classification. DNA was extracted from each sample by conventional phenol/ chloroform method. The extracted DNA was then subjected to RFLP-PCR for DNA polymorphism. Patients were examined for the three major mutations but we also looked for the SNP5-JW1 mutation which is associated with CD in Ashkenazi Jews. The pattern of the DNA fragment was visualized on 2% agarose gel with ethidium bromide.

RESULTS

None of the three major risk alleles were identified. In the CD group; five patients were found to have JW1 mutation (Figure 1), one patient was found to have the SNP5 mutation (Figure 2) but only one patient was found to have the SNP5-JW1 combination. The baseline characteristics of these patients as well as the disease phenotype are summarized in Table 1. None of the patients in the control or UC group were found the have any of the mutations.

CONCLUSIONS

Although the three major NOD2/CARD15 mutations identified among the Caucasians are not present in any of the ethnic groups, this study suggests that that there may be other disease predisposing mutations in this gene among the Asian population. Similar to the West, mutations in the NOD2/CARD15 gene appear to be associated with stricturing, terminal ileal disease.

FP 50

CLINICAL COURSE OF ULCERATIVE COLITIS IN A MULTIRACIAL ASIAN POPULATION

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INTRODUCTION

Ulcerative colitis (UC) is an emerging disease in Asia. The aim of this study is to determine the clinical course of disease in an Asian population.

METHODS

Patients with UC from 7 centers seen between Jan 2004-Dec 2005 were recruited. Baseline characteristics, extent of disease was recorded as well as clinical course and relapsed disease for every year after diagnosis Clinical course was classified as remission, chronic intermittent disease, continuous disease low activity and continuous disease high activity.1Complications such as toxic megacolon and severe bleeding from fulminant colitis, the presence of extraintestinal complications and colorectal carcinoma were recorded.

RESULTS

118 patients were included however complete data of the clinical course was available in only 92 patients. Baseline characteristics were as follows: Male 55 (46.6%), Female 63 (53.4%); Malay 30 (25.4%), Chinese 36 (30.5%), Indians 48 (40.7%). Median age of presentation was 36 (range 14 – 72). Extent of disease; proctitis only 22 (18.6%), sigmoid colon 23 (19.5%), descending colon 16 (13.6%), transverse colon 11 (9.3%), ascending colon and pancolitis 46 (39%). Median duration of disease was 7 years (range, 1 – 46).

The clinical course is summarized in Figure 1.Most patients had chronic intermittent disease although a mean 26.6% of patients had continuous activity for at least five years. Relapse rate was 45.3% at one year and 63.6% at five years.

In terms of complications; fulminant colitis leading either toxic megacolon, perforation or bleeding was seen in 4 (3.4%) patients. Extraintestinal complications were seen in 27 (22.9%). None of the patients developed colorectal cancer during the follow up period but one patient was found to have low grade dysplasia at surveillance colonoscopy. Only 7 (5.9%) of patients had undergone a colectomy.

CONCLUSION

Similar to the West, most of our patients have a relapsing pattern of disease. However, the clinical course appears to be milder with lower rates of complications including colorectal carcinoma and lower rates of colectomy.

1. Langholz E, Munkholm P, Davidsen M, Binder V Course of ulcerative colitis: analysis of changes in disease activity over years. Gastroenterology 1994;107:3-11

FP 51

CERVICAL INLET PATCH: AN UNDER RECOGNIZED ENTITY

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Cervical inlet patch (CIP) or heterotopic gastric mucosa patch of the oesophagus are congenital gastrointestinal anomalies that may lead to non-specific throat or oro-pharyngeal symptoms. Symptoms are probably related to acid production refluxing proximal causing laryngo-pharyngeal reflux. Due to their proximal location just distal to the upper oesophageal sphincter, this condition is often missed during endoscopy. The reported incidence in the endoscopic literature ranged from 0.29% to 10%. This is higher in autopsies studies; hence suggesting that under recognisation is prevalent. We report a series of five cases of CIP. The gender ratio was male 60% with a median age of 58 years old (range, 34 to 84). Four patients had oro-pharyngeal symptoms; three of which were significant. The other patient was asymptomatic and was detected whilst being evaluated for gastrointestinal bleeding. Endoscopy showed a median of two patches (range, 1 to 2) located at 18 to 20 cm from the incisors. Biopsies that were done in four patients showed fundic type gastric mucosa in 50% and body type mucosa in 50%. Symptoms were prominent in those with fundic type mucosa. All patients responded to prolonged maximal acid suppression with proton pump inhibitors. Our case series highlight the need to consider CIP in patients with oro-pharyngeal symptoms that may not response to short duration of treatment.

FP 52

PERSISTENT GASTROINTESTINAL BLEEDING AFTER JEJUNAL RESECTION OF BLEEDING JEJUNAL ANGIODYSPLASIA IN A LADY WITH MITRAL VALVE REPLACEMENT ON WARFARIN, THALASSEMIA TRAIT, CHRONIC HEPATITIS B, DIABETES MELLITUS AND GOUTY ARTHRITIS

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OBJECTIVE

To report a problem case of management.

RESULTS

We report a 49 years old lady with mitral valve replacement on warfarin, beta-thalassemia trait, chronic hepatitis B, diabetes mellitus and gouty arthritis presented since 1999 with iron deficiency anemia and recurrent melena. Esophagogastroscopy, colonoscopy, angiographic studies and red cell scan did not reveal any source of gastrointestinal bleeding. She was then referred for capsule endoscopy (CE) which revealed bleeding jejunal mass which was later resected. Histopathological examination showed a jejunal angiodysplasia. However, she still has persistent melena needing recurrent blood transfusion. Push enteroscopy did not revealed any other angiodysplasia. Reasons for persistent bleeding included multiple and synchronous angiodysplasia and underlying medical problems. Possible options of management included repeat CE or double balloon enteroscopy, transfusion support and treatment of underlying medical problems.

CONCLUSION

Jejunal angiodysplasia can be multiple and synchronous. Bleeding may complicate with multiple underlying medical problems.

FP 53

METASTATIC GIST PRESENTING WITH HYPERCALCEMIA – A CASE REPORT

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A 65 year old lady with a background history of hypertension and Non Insulin Dependant Diabetes Mellitus presented to our emergency service with a one day history of altered conscious level. Her Glasgow coma scale score was 10 (M:5,V:2,E:3). There were no other localizing neurological signs. Abdominal examination revealed a hard, nodular, fixed, non tender mass, measuring 6cm x 6cm at the right hypochondrium which was separate from the liver. Remainder of the clinical examination was unremarkable. An urgent Computed Tomography scan of her brain showed changes consistent with cerebral atrophy. Laboratory investigations were as follows:-

FBC and Renal profile – normal
Serum calcium : 4.1 mmol/L (corrected) (Normal range : 2.10-2.60)
Phosphate and Magnesium – normal.
Alkaline phosphatase : 240 (Normal range : 53 – 141).

After aggressive rehydration, she become fully conscious and alert.

Further radiological and laboratory tests were performed :-

Chest XRay – normal. Ultrasound Abdomen – multiple calcified lesions in the liver with a probable small bowel mass. CT abdomen – similar findings to the ultrasound. No obvious lymphadenopathy seen. A CT guided biopsy was attempted but no satisfactory tissue was obtained. ESR : 104

Plasma intact Parathyroid Hormone : 6.5pg/ml (Normal range : 5 – 39)

Mantoux test : 4mm

Urine Bence Jones : negative. Skeletal survey : normal. Serum ACE : within normal limits. Serum and urine protein electrophoresis : No paraprotein band seen. Colonoscopy and Enteroscopy – normal.

Bone scan : focal uptake of the radiopharmaceutical was seen in the right lumbar region within the abdominal cavity presumably due to soft tissue calcification of the tumour mass

Endoscopic Ultrasound : multiple calcified cystic liver lesions and matted calcified loops of bowel. Fine needle aspiration of the liver lesions revealed occasional spindle cells.

The patient was referred for laparoscopy which revealed matted loops of bowel, adhesions and multiple nodules on the abdominal wall with multiple calcified lesions in the liver.

Biopsies of the abdominal wall nodules were taken. Histopathological examination revealed multiple spindle cells arranged in herring bone and storeiform pattern which stained strongly positive for CD117

DISCUSSION

Gastrointestinal stromal tumours (GIST) classically exhibit mutations in the c-kit proto-oncogene .

In our patient, standard radiological examinations such as transabdominal ultrasound and CT scanning did not provide sufficient information to make an accurate pre-operative diagnosis. EUS-FNA provided a clue to the diagnosis but the amount of tissue obtained was insufficient to do immunohistochemical staining. Laparoscopy and biopsy was eventually needed for an accurate diagnosis.

This is the first case report of metastatic GIST presenting with malignant hypercalcemia.

FP 54

GASTROINTESTINAL TUBERCULOSIS: CLINICAL REVIEW IN TWO STATE HOSPITALS IN MALAYSIA

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BACKGROUND

Tuberculosis can involve any part of the gastrointestinal tract and can be difficult to diagnose as it may mimic many other common intestinal and abdominal diseases particularly in the absence of Pulmonary Tuberculosis (PTB). The aim of this study is to review the characteristics and clinical features of patients diagnosed with gastrointestinal TB (GiTB).

METHODS

The medical records of 31 patients diagnosed with GiTB between January 2000 and January 2005 at two northern state hospitals in Malaysia were reviewed retrospectively.

RESULTS

The median age of patients (9 females, 22 males) was 40 years (range 3-82 years). Of the 31 patients, 23 (74%) were Malay, 3 (9.7%) were Indians and 2 (6.5%) were Chinese. Only 2 patients had past history of PTB, 3 patients had Type 2 DM and 6 patients (19%) had history of contact with PTB and positive for HIV infection respectively. 16 patients (52%) had BCG scars and results of Mantoux test were positive only in 3 patients(10%). The most frequent presenting symptoms were abdominal pain (77%), diarrhea (45%), weight loss (45%) and abdominal distension (42%). 11 patients presented with acute abdomen (5 peritonitis, 6 bowel obstruction) to emergency department. Peritoneum (11) was the commonest site of involvement, followed by Mesenteric Lymph Node (8), Ileocaecum (7), Small Bowel (excluding T.Ileum), Right colon, Caecum and T.Ileum. Other less common sites were Omentum, Liver, Spleen and Ano-Rectum. Histopathological examination of biopsy specimens revealed granuloma in 23 (74%) patients. Caseous necrosis was found only in 16 (52%) patients and acid-fast bacilli (AFB) were noted in13 (42%) of the 31. However, Mycobacterium(MTB) culture on biopsy specimens were negative in majority of the cases. 14 patients (45%) showed abnormal chest xray which were consistent with concomitant active pulmonary tuberculosis (PTB).

CONCLUSIONS

The high incidence of GiTB in non-HIV and healthy individuals with no past history or contact with PTB was alarming. The important features noted in this study were frequent complaints of abdominal pain and higher incidence of peritoneal, mesenteric nodes and ileocaecal tuberculosis. The finding of granulomas in biopsy specimens were significant but MTB was rarely isolated from the culture.

FP 55

SUPERIOR MESENTERIC ARTERY SYNDROME IN A HIV INFECTED PATIENT

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A 43-year-old Chinese man who is known to have HIV infection was admitted for recurrent vomiting for 1 week duration. Two weeks prior to the admission, he was treated emphirically for Pneumocystis carinii pneumonia with a course of Bactrim. There were no dysphagia, odynophagia, haematemesis, melena or fever. The patient was cachexic and dehydrated. He was neither pale nor jaundice. Examination of the throat was normal with no oral candidiasis. Abdominal examination was also normal with no area of tenderness. Bowel sound was normal. Upper gastrointestinal endoscopy showed a grossly distended stomach filled with bile. His first and second part of the duodenum were dilated. Barium swallow and follow through showed an abrupt obstruction of the barium flow between the third and forth part of duodenum in the midline. The barium was able to flow through slowly by tilting the patient into the left lateral position. Subsequent, abdominal ultrasound and CT scan showed dilatation at proximal duodenum with a distended stomach. No enlarged lymph nodes or mass were seen around the duodenum. The angle between the aorta and superior mesenteric artery was reduced to only 10 degrees.

Initially he was treated with parenteral nutrition with a nasogastric tube for decompression of the stomach. A repeat upper endoscopy with a paediatric colonoscope showed an external compression of the third part of the duodenum. During the procedure a nasojejunal feeding tube was placed at the proximal jejunum beyond the obstruction for feeding. Subsequently this was converted to percutaneous gastrojejunostomy feeding tube. Unfortunately the patient developed peritonitis 2 days after the procedure. Thus, a laparatomy was done and an intra-operative jejunostomy tube was placed. After a course of antibiotic, commencement of HAART and feeding via the jejunostomy tube, the patient put on weight and his symptoms improved. The patient remained well although the jejunostomy tube slipped out spontaneously 3 weeks later.

DISCUSSION

Superior mesenteric artery syndrome is due to reduction in the angle between the aorta and the superior mesenteric artery causing a compression of the third part of the duodenum. This is commonly caused by acute severe weight loss resulting in a reduction of mesenteric and retroperitoneal fat. Precipitating factors include anorexia, prolonged immobilisation, abdominal surgery, or severe illnesses. It has also been reported in AIDS. Characteristic symptoms comprise of bloating, nausea and intractable bilious vomiting relieved by adopting the prone or knee to chest position. A barium meal will show dilatation of the first and second parts of the duodenum and an abrupt, linear hold up of flow to barium in the third part. The obstruction can occasionally be relieved by placing the patient prone or tilting the patient to the left lateral position. CT studies can demonstrate reduction in the aortosuperior mesenteric artery angle. Reversal of weight loss will lead to recovery. This can be achieved either via conservative treatment or surgically. Conservative treatment include decompression of the stomach and parenteral nutrition. Later, the patient can try to eat but to lie prone after meals to facilitate emptying of the stomach. Gastrojejunostomy and duodenojejunostomy should be attempted if medical therapy fails.

In conclusion, HIV infected patients who suffered severe weight loss presenting with recurrent vomiting, superior mesenteric artery should be considered as a diagnosis.

FP 56

TYPHOID OUTBREAK: HUSM EXPERIENCE

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INTRODUCTION

Typhoid fever is endemic in Kelantan. The authors intend to compare usage of intravenous ceftriaxone (3 grams daily,estimated retail price RM60 per 1 gram vial) and ciprofloxacin (200 miligrams bd,estimated retail price RM95 per 200 miligram vial) during the 2005 typhoid epidemic in terms of fever clearance time (defervescence time), cure rate, relapse rate and cost effectiveness.

METHODOLOGY

This was a retrospective study involving adult typhoid fever cases treated in Hospital Universiti Sains Malaysia from 1st April to 30th June 2005. Presence of at least 1 criteria was considered a confirmed typhoid case: demonstration of *Salmonella typhi* by positive blood, urine or stool culture; significant "O" and "H" Widal titres of O > 1:160 for *S. typhi* and a four-fold rise in Widal titres together with clinical manifestations of infection; or positive Typhidot enzyme immunoassay (EIA) dot blot test for IgM antibody against typhoid antigen.

RESULTS

A total of 122 patients were reviewed. Mean age (years) in the ceftriaxone group was 28.66±14.963 and in the ciprofloxacin group 30.05±17.539. 55 (45.1%) were male and 67 (54.9%) female. There were 36 males and 49 females in the ceftriaxone group while the ciprofloxacin group had 19 males and 18 females (P = 0.843). There were 117 (95.9%) Malay, 4 (3.3%) Chinese and 1 (0.8%) Myanmar patient(s). Only 54 (44%) of patients reported contact with a typhoid patient.

85 (69.7%) patients were treated with ceftriaxone while 37 (30.3%) had ciprofloxacin. Defervescence time (days) for ceftriaxone patients was 3.76±1.937 and for ciprofloxacin patients 3.46±1.835 (P = 0.418). Cure time (days) for ceftriaxone patients was 4.75±2.017 and for ciprofloxacin patients 4.27±1.924 (P = 0.221). 5 and 1 relapse cases were recorded for the ceftriaxone and ciprofloxacin group respectively (P = 0.666).

CONCLUSION

There is no significant difference between the two antibiotics in terms of defervescence time, cure time or number of relapse cases. Based on the estimated retail price however, the use of IV Rocephin (ceftriaxone) is slightly more cost effective than IV Ciprobay (ciprofloxacin) for the same number of treatment days.

FP 57

ABDOMINAL INFLAMMATORY PSEUDOTUMORS IN CHILDREN

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PURPOSE

Inflammatory pseudotumors (IPT) are rare benign non-neoplatic lesions of unknown etiology. We report three cases of abdominal IPT seen between 1995 to 2005.

METHOD

There were two males & one female. Their age ranged between 2 to 13 years. All of them presented with intermittent high grade fever, pallor and failure to thrive. A 6-year old female child presented with fever, & pallor. Routine ultrasound showed, a mass in the left upper quadrant suggesting a neuroblastoma. CT showed a mass arising near the tail of the pancreas. A 2-year old male child presented with a mass arising from the pelvis & had a CT scan & was diagnosed as rhabdomyosarcoma from the bladder. Another male child presented with a mass in the right loin. CT showed a mass arising from the renal pelvis suggesting a Wilms' tumor. All of them had anemia, leucocytosis, thrombocytosis and a raised ESR. Cultures for bacteria & fungi were negative. The child with the renal mass had a raised titre for mycoplasma. True cut biopsy confirmed IPT in two – the pelvic mass & the renal lesion. The child with the mass in the pancreas had laparotomy & resection. The child with the renal mass was treated with antibiotics & steroids. He developed hematuria & a right nephrectomy was performed. The child with the pelvic mass developed severe rectal bleeding & had an emergency laparotomy. A mass in the sigmoid mesentery & eroding into the colon was resected.

RESULTS

All of them recovered & remain well one to 9 years after surgery.

CONCLUSION

IPT have a heterogenous clinical presentation making diagnosis without histopathology difficult. At times they behave like malignant lesions and may be lethal. Complete resection is the treatment of choice and is curable. Unresectable or incompletely resected lesions can be successfully treated with NSAID group of drugs, such as cyclo-oxygenase – 2 inhibitors.

FP 58

RECTAL GIST (GASTROINTESTINAL STROMAL TUMOUR)

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AIM
To report a case of Rectal GIST.

CASE REPORT
SHC is a 50 year-old Indian lady presented with symptoms of per rectal bleeding associated with prolapsing mass and mucus stools for 6 months' duration. She also had associated symptoms of abdominal discomfort, loss of weight and loss of appetite.

Her blood investigations revealed moderate anemia with Hb of 8.9 g/dL. Other biochemistry were normal. CEA was normal. Digital rectal examination (DRE) & proctoscopy revealed a round, firm, smooth and sessile polypoid mass of 5 cm diameter at 5 cm from the anal verge. Trucut biopsy was performed. She subsequently underwent colonoscopy and OGDS which defined no further polyp or growth. Her radiological investigations ie. USS and CT scan detected no evidence of metastatic lesions. CT scan showed a well-circumscribed, homogenous density mass arising from the submucosa of the rectum with no evidence of local spread or extension.

She was subjected to operation after the histology confirmed GIST. We performed abdomino-perineal resection (APR) with end sigmoid colostomy. Her post-operative course was uneventful. Histology of the resected specimen showed GIST of moderate mitotic activity (> 18/50 hpf) with surgical margins free of tumour and no lymph nodes metastases. She was referred for further management to the oncologist which did not start her on tyrosine kinase inhibitors. She is currently on regular follow up and is doing well.

DISCUSSION
GIST are mesenchymal tumours which typically arise within the muscularis propria of gastrointestinal tract wall. They occur most frequently in the stomach (60%) and small small bowel (30%). Other sites include the colon and the rectum (5%), esophagus (< 5%), the omentum, mesentery or retroperitoneum. The account for 1 – 3% of gastric neoplasms, 20% of small bowel tumours and 0.2 – 1% of colorectal tumours.

Surgical resection is the conventional therapy for GISTs. However, overall prognosis of patients treated with surgery alone is discouraging. Selective tyrosine kinase inhibitors (ie. Gleevec) are the treatment modality of choice for metastatic or recurrent or unresectable tumours.

FP 59

PEUTZ-JEGHERS SYNDROME (PJS) WITH SEX CORD TUMOUR WITH ANNULAR TUBULES

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AIM

To present a case of Peutz-Jeghers Syndrome with Sex Cord Tumour with Annular Tubules (SCTAT)

CASE REPORT

A 14-year-old girl, who is a known case of Peutz-Jeghers syndrome, being followed up from the age of 2 year-old, underwent laparotomy following a colonoscopy which showed numerous large colonic polyps which on biopsy showed dysplastic and tubulo-adenomatous changes. This child had several previous admissions for anaemia, abdominal colic and intussusception and for surveillance upper GI and lower GI endoscopy and was operated thrice. Her mother had PJS and died of duodenal adenocarcinoma at the age of 36 years. At laparotomy, numerous polyps were felt in the colon especially in the caecum and ascending colon region. In view of the adenomatous change, she had subtotal colectomy up to the lower sigmoid region and an ileo-sigmoid anastomosis was performed. Polyps in the ileum were also removed at 4 sites by enterotomy and by intussuscepting the bowel. We noted bilateral dilated and tortuous fallopian tubes filled with fluids (hydrosalpinx) and both the ovaries were appearing whitish, firm and lobulated. In view of the occurrence of unusual ovarian tumours, we performed a right salpingo-oophorectomy. She also had a left salpingectomy for haemotosalpinx and the left ovary was preserved. She recovered well from the surgery and she is on regular follow-up. The histopathology of the ovary showed SCTAT.

DISCUSSION

SCTAT is a distinctive ovarian neoplasm and about 1/3 of the patient with this tumour have PJS. This tumour is characterized by the formation of simple and complex annular tubules of multicentricity. Calcification is common. This tumour is thought to arise from the granulosa cells but to grow in a pattern more characteristics of Sertoli cells and the annular pattern of arrangement is designated as "SCTAT". These tumours are benign but the oestrogen level is increased in these patient. In our patient, the oestrogen level is 214pmol/L (0 – 198). The high oestrogen level leads to endometrial hyperplasia and also increased incidence of cervical malignancy. This paper is presented for its rarity and to create awareness among the clinicians to look for ovarian neoplasm in children with PJS.

FP 60

EPITHELIAL SPLENIC CYST: A CASE REPORT

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INTRODUCTION

Splenic cysts can be either parasitic or non-parasitic in origin. Non-parasitic cysts may be classified further into primary true cysts or secondary pseudocysts. True splenic cysts are lined by an epithelial membrane and either congenital or neoplastic. They are uncommon, comprising only about 10% of benign non-parasitic cysts. We reported a case with congenital epithelial splenic cysts.

CASE PRESENTATION

A 20 year old male presented to us with complaint of abdominal swelling over the left hypochondrium region for 1 year duration. He noticed the swelling has been increased in size for the last 3 months. Examination revealed a large mass arising from the left hypochondrium, measuring about 15 x 25cm. Computed Tomography (CT) imaging showed a large cystic lesion in the left side of abdomen measuring 21cm x 14cm x 22cm. Open total splenectomy was performed and the histopathological examination confirmed epithelial splenic cyst.

DISCUSSION

Ninety percent of non-parasitic splenic cysts are pseudocysts that lack of epithelial lining. They usually arise secondary to trauma, infection, inflammation, or infarction of the spleen. Less common non-parasitic splenic cyst is congenital cyst. Congenital splenic cysts are also called epidermoid or epithelial cysts. They are uncommon, comprising only about 10% of benign non-parasitic cysts. Patients usually present in their twenties to forties, with higher prevalence among women. Hydatid cyst is the only parasitic cyst of the spleen and it is said to be twice as common as the non-parasitic variety. Ultrasound and Computed Tomography alone or in combination should establish the definite diagnosis of splenic cyst. Non-operative techniques have been employed in these conditions but the cyst often recurs. Open splenectomy was the standard treatment for splenic cyst until the early 1970, when post splenectomy sepsis was widely recognized. Partial splenectomy was therefore introduced in order to prevent the fatal sepsis event. In the laparoscopic era, laparoscopic splenectomy for various benign conditions was found to be feasible and superior to open splenectomy. This was followed by laparoscopic partial splenectomy for the non-parasitic cyst. For our patient, open total splenectomy was performed in view of the cyst's size, patient's age and lack of the expertise for laparoscopic procedure.

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PANCREATIC HEAD MASS IN A 27 YEAR OLD MALE – TISSUE FIRST OR SURGERY?

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A 27 year old Nepali man presented with painless jaundice, fever and pruritus for a week. No respiratory symptoms noted. Examination revealed jaundice with scratch mark on body, no pallor, lymphadenopathy found. Lungs were clear and no abdominal mass or ascites detected. Mantoux test was 17mm. Blood tests: Bilirubin 255micromol/L, Alkaline phosphatase 507U/L, ALT 96 U/L, albumin 41g/L, ESR 8mm/1st hr, Hb 153 g/L, TWDC 6.28x10^9/L, platelet 330x10^9/L. HBsAg,HCV and HIV screen were negative. Chest X-ray was normal.

Ultrasound abdomen and CT scan showed the head, neck and part of the body of the pancreas were heterogenous with irregular cystic lesions noted within it. There were small peripancreatic and para-aortic lymphadenopathy. Liver was normal. Intrahepatic ducts were mildly dilated.

EUS showed mass seen at head & neck of pancreas part of pancreatic body. CBD dilated and PD normal. Multiple coeliac and peripancreatic nodes. FNA of mass with aspiration of pus done. AFB C+S and cytology later reported as granuloma with few giant cells and no malignant cells seen. ERCP showed long distal CBD stricture. PD was not dilated. CBD stent was inserted. A diagnosis of pancreatic TB was made and anti-TB treatment was started. Twelve weeks later, the EUS FNA AFB C+S of pancreatic mass grew *Mycobacterium tuberculosis*.

CONCLUSION

In an Asian setting one must be aware of TB being the great mimicker. FNA using EUS made the diagnosis of TB pancreas and prevented the patient from having unnecessary surgery.

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THE GASTROINTESTINAL MANIFESTATION OF DENGUE INFECTION IN ADULTS IN URBAN KUALA LUMPUR

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INTRODUCTION

Dengue fever is a major cause of morbidity during epidemics in South East Asia and has prominent gastrointestinal manifestation. This study aims to define the gastrointestinal manifestation of Dengue infection.

AIMS & METHODS

This is a retrospective cross-sectional study on all the patients that were admitted to Kuala Lumpur Hospital, a tertiary 2500 bedded hospital for Dengue infection from 1st Dec 2004 to 31st Dec 2004. Dengue infection was diagnosed by the WHO clinical criteria with or without serological tests (ELISA test for dengue IgM).

RESULTS

We analyzed a total of 666 patients who had Dengue fever with a median age at 24±11 (range:12 – 72) years with a male preponderance (65%), and a ethnic background of Malays (70%), Chinese (12.3%), Indians (8.2%) and Foreigners (9.5%). Dengue infection by WHO criteria were Dengue fever 34.5%, DHF grade 1, 40.1%, DHF grade 2, 24%, DHF grade 3, 1.1%, DHF grade 4, 0.3%. There was a progressive increase of percentage of patients presented with DHF from younger age group to older age group till age of 36, (< 19 yrs 60.1%, 19 – 24 yrs 62.6%, 25 – 30 yrs 69.1% , 31 – 36yrs 72.2%). Male (68.1%) and female (60.5%) presented with DHF. A total of 26 patients required intensive care with 2 mortality. More patients in the teenage and older age groups (< 18 yrs and > 43 yrs, 5.4% and 5.5%) need intensive care compare to the young adults (25 – 36 yrs, 2.6%). The common presenting symptoms and signs were nausea (63.8%), vomiting (64.4%), diarrhea (35.6%), abdominal pain (47.3%), rash (29.4%), gastrointestinal bleed (4.4%), jaundice (1.4%), abdominal tenderness (40.8%), hepatomegaly (17.9%), splenomegaly (0.3%), ascites (2%), pleural effusion (12.6%), encephalopathy (0.6%) and arthritis (0.6%). The lowest platelet count was noted at mean 6±1 (range: 2-12) day from inception of fever at 38±24 (range: 3 – 99) x 109/l. Abnormal ALT was found in 70.5% on admission. The mean AST was higher than ALT. The ALT decline was lowest at day 6±2 (range:2-11) days at 140±166 (range:8-1394) U/L with 77.2% outside the normal range . The ALT was noted to be higher in the group requiring intensive care compared to the uncomplicated cases. 397±41(range: 14 – 1394) vs 128±137 (range: 8 – 986, p < 0.005). There was increasing trend of patients presented with abnormal worst ALT when the age increases (< 18 yrs 64.7%, 19 – 24yrs 74.6%, 25-30 yrs 80.3%, 31 – 36 yrs 84.1%, 37 – 42 yrs 86%, > 43 yrs 89.9%). Most patients in all age groups had worst ALT between 1 to 4 fold of ULN (range 45 – 60%, average 51.8%); 13.9% with worst ALT between 4 to 7, 5.6% between 7 to 10, fold of ULN. 5.9% with ten fold greater than upper limits. More patients in older age groups (37 – 42 yrs 10%, > 42 yrs 10.1%) had worst ALT > 10 fold ULN compare to all other younger age groups, < 7%. 75.5% of male had abnormal ALT compare to 80.4% of female.

CONCLUSION

Gastrointestinal manifestation and hepatitis is common in Dengue infection. Necroinflammatory process as indicated by the surrogate marker ALT can be deemed mild to moderate in most cases. However ALT may help predict the cases that may require intensive care. Older patients tend to have more severe ALT derangement.

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A DESCRIPTION OF CHYLOUS ASCITIS

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BACKGROUND

Chylous ascites is a rare form of ascites resulting from an accumulation of lymph in the abdominal cavity. The diagnosis is established when the concentration of triglycerides in the ascitic fluid is >200 mg/dl. The most common causes in Western countries are abdominal malignancy especially in adults, in whom lymphoma accounted for at least one third of the cases in one large series of patients identified over 20 years In contrast, infections, such as tuberculosis and filariasis, account for the majority of cases of chylous ascites in Eastern and developing countries. We report two cases of chylous ascitis secondary to lymphoma.

CASE 1

A 70-year-old Indian female presented with loss of weight (20kg) and appetite for 8 months. She also complained of abdominal distention for two weeks prior to admission. CT abdomen showed multiple enlarged paraaortic, paracaval and retrocaval nodes associated with gross ascites. The peritoneal fluid was of milky appearance suggestive of chylous ascitis. A laparotomy was done primarily for access to tissue diagnosis and the Histopathological report of the intra abdominal lymph nodes was consistent with Anaplastic Large cell Lymphoma.

CASE 2

A 55-year-old Indian man with a long history of chronic ethanol consumption presented to a district hospital with abdominal distention and bilateral leg edema. He was initially treated for heart failure. Subsequently he was found to have multiple lymph nodes in the cervical, axilla and groin. A diagnostic peritoneal tap revealed chylous ascitis with markedly raised triglyceride level. Abdominal CT scan showed enlarged liver and spleen and multiple lymph nodes at the para-aortic and inguinal regions with right pleural effusion. Biopsy of the inguinal nodes showed Low grade Small cell Follicular lymphoma (Non Hodgkin Lymphoma).

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