The Hong Kong Society of Gastroenterology
香 港 腸 胃 學 會

OCTOBER 2011

The Council

President Message

Message from Prof. Benjamin C.Y. Wong, President

Welcome all of you to the third issue of our newsletter in 2011.

The 13th Joint Annual Scientific Meeting held on 10 September 2011 evidenced the continuous success of the joint efforts of six GI societies including our new partner, Hong Kong IBD Society.

On behalf of the Society, I wish to express my sincere thanks to all who have contributed to this Newsletter: Professors Philip Quirke, Hans Tillmann, Siu-Wa Tang, Doctors William Meng, Grace Lai-Hung Wong, Larry Hin Lai and Danny Ka-Fai Siu for their scientific summaries, Dr. Wai-Mo Hui and Prof. Justin C.Y. Wu for editing this Newsletter; and friends from the pharmaceutical industry for their generous sponsorship and efforts.

I would like to thank everyone that has accepted the invitation to our 30th anniversary celebration dinner on 9 December 2011. For those who have not replied yet, please kindly consider joining us that evening with your spouse or colleague. You can simply reply by email to gastro@hksge.org or call our secretariat at Tel. 2869 5933. I look forward to seeing all of you.

Scientific Updates

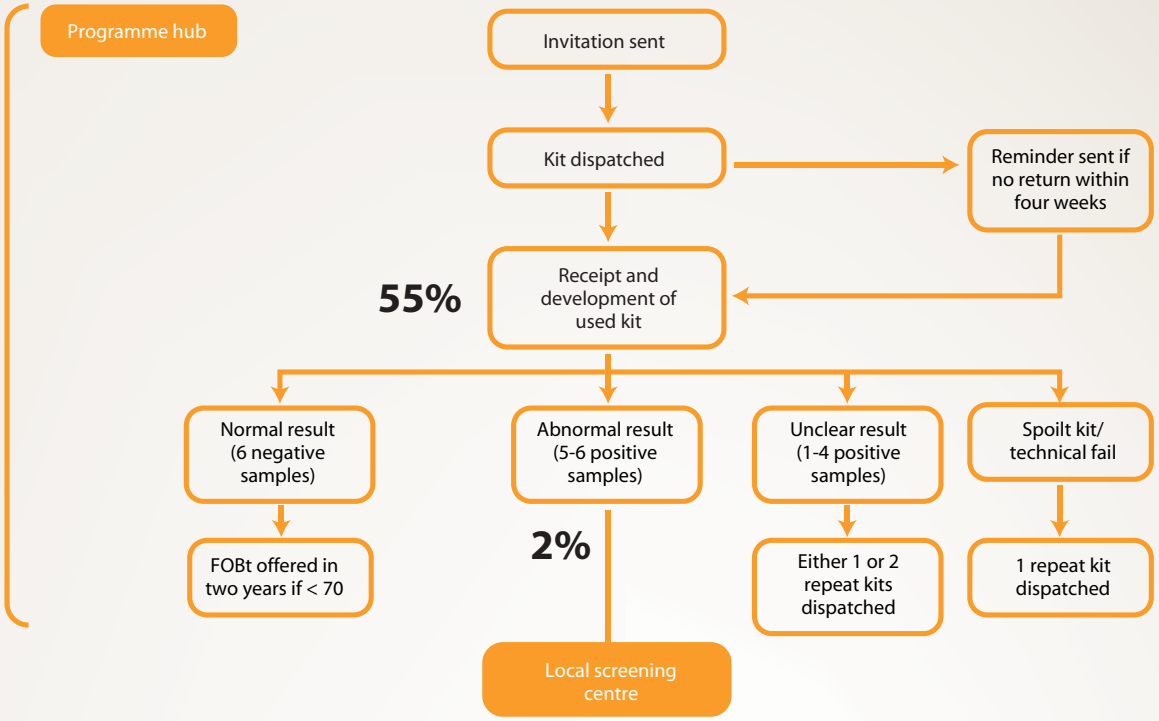
The UK Colorectal Cancer Screening Program: Making a difference

Prof. Philip Quirke
Leeds Institute of Molecular Medicine
Leeds University
Leeds, UK

Colorectal cancer is the second leading cause of death in the European Union, with 380,000 new cases diagnosed annually. The United Kingdom launched a nationwide colorectal cancer screening program using the fecal occult blood test (FOBT), distributing millions of test kits to the 60-to 74-year-old population from September 2000 to the present time. Of the 55% that were returned, 2% of samples tested positive. Subsequent colonoscopy of FOBT-positive patients revealed 40% to have neoplastic changes in the colon and rectum.

Strict standards for pathology were followed to avoid inaccuracies in estimating lesion size during endoscopy. Histological classification of the lesions revealed 75% to be tubular adenomas with an average size of 7 to 9 mm, while 10% were classified as high-grade dysplasias. Larger adenomas (10 to 12 mm) were characteristically found in the sigmoid and rectosigmoid areas. The opposite was seen during flexible sigmoidoscopy screening, which documented smaller and lower-grade lesions. A higher rate of stage A cancers was reported in the screened than in the general population (39.6% vs 12.8%), whereas the reverse trend was observed for stage D neoplasms (13.5% vs 4.6%).

Figure. The screening pathway



FOBT, faecal occult blood test

A meta-analysis of FOBT screening data from 4 different countries has shown that early detection can reduce deaths from colorectal cancer by up to 23% among screened individuals.[1] Similarly, use of flexible sigmoidoscopy for screening decreased the incidence and mortality rates by 33% and 43%, respectively.[2]

Despite the advent of newer diagnostic modalities, FOBT remains an efficient and economical screening tool for colorectal malignancy. Novel blood and fecal tests such as those utilizing genetic markers for DNA mutations (KI-ras/BRAF) as well as protein immunoassays, though promising, require further validation and cost-effectiveness analyses.

References

1. Towler B, Irwig L, Glasziou P, et al. *BMJ* 1998;317:559-565.
2. Atkin WS, Edwards R, Kralj-Hans I, et al. *Lancet* 2010;375:1624-1633.

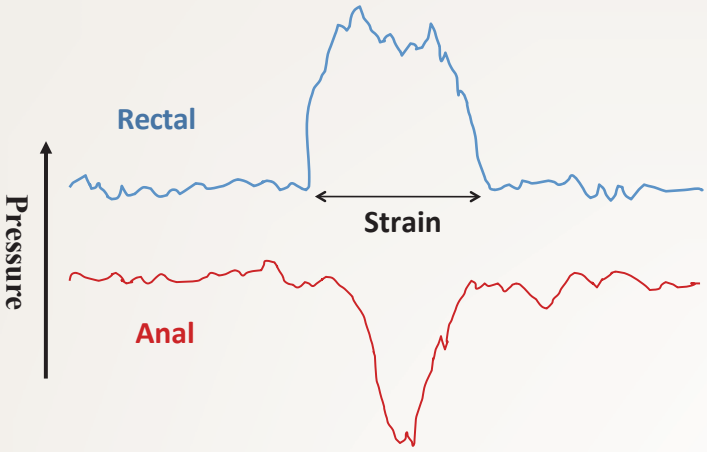
Multidisciplinary approach to the treatment of chronic constipation

Dr. William Meng
Department of Surgery
Our Lady of Maryknoll Hospital and
Kwong Wah Hospital
Hong Kong, China

Idiopathic constipation has a prevalence of 14% in the Hong Kong population and affects men and women equally.[1] Traditionally diagnosed using the Rome criteria, it comprises a wide spectrum of disorders that may arise from mechanical, neurological, metabolic, drug-related or other conditions. A thorough history and physical examination can help rule out secondary causes, such as colorectal carcinoma, and identify relevant symptomatology. When the etiology is not immediately apparent, blood tests, flexible sigmoidoscopy and anorectal physiology tests may also be required.

Specifically, assessment of anorectal physiology through manometry, electromyography and imaging studies plays an important role in determining which of three functional types of constipation (ie, slow-transit, dyssynergic defecation, or normal-transit) predominates in a particular case. While routine studies tend to have limited benefit, dynamic rectal and anal pressure measurements as well as cutaneous electromyography are generally useful parameters for diagnostic and monitoring purposes.

Figure. Normal coordinated response of the anorectum during attempted defecation



Treatment modalities are varied and range from simple dietary manipulation and ritualization of bowel habits to minimal access surgery for more complicated cases. Laxatives such as osmotic agents, gut stimulants, bulking agents, stool softeners and prokinetic agents are also commonly prescribed and provide symptomatic relief.

Recently, a multidisciplinary bowel rehabilitative program (BRP) which included biofeedback training was shown to be effective in increasing bowel motion, decreasing straining time, improving straining effort, raising the Bristol stool score, and increasing fibre intake in individuals with chronic constipation, leading to an overall improvement in patient satisfaction.[2] The treatment involved consultation by the dietitian, postural re-education and pelvic floor re-education regarding the proper pattern of defecation. Patient rapport and dedication are very important contributors to the success of treatment and surgery is generally reserved as a last resort.

References
1. Cheng C, Chan AO, Hui WM, Lam SK. *Aliment Pharmacol Ther* 2003;18:319-326.
2. Leung RW, Fung BK, Fung LC, et al. *J Assoc Chart Physiother Womens Health* 2008;102:36-44.

Contrast-enhanced ultrasound (CEUS) of the liver

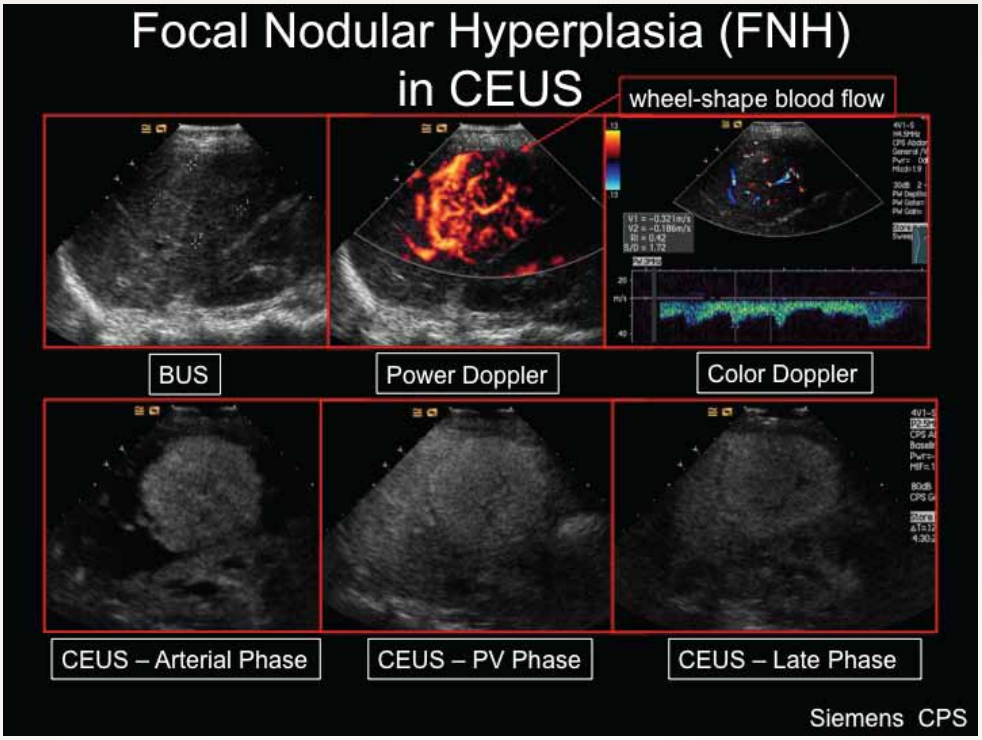
Dr. Grace Lai-Hung Wong
Centre for Liver Health
Department of Medicine and Therapeutics
The Chinese University of Hong Kong
Hong Kong, China

Ultrasound is a highly efficient and low-cost modality for imaging liver pathology, but has limited capability to differentiate benign from malignant tumors. Recently, contrast-enhanced ultrasonography (CEUS) has greatly improved the diagnostic accuracy of conventional techniques, particularly in visualising specific tumor vascularization patterns. By administering gas-filled microbubble contrast agents (eg, Definity, Levovist, Sonazoid, Sonovue) into the systemic circulation, dynamic assessment of focal liver lesions and visualization of blood perfusion to the liver and different organs becomes possible.[1,2]

The process of CEUS is divided into three phases: contrast material enhances visualization of the hepatic artery within 10 to 35 seconds after injection (arterial phase), then reaches the portal vein within 30 to 180 seconds (portal venous phase), and finally leaves the parenchyma within 120 to 360 seconds (delayed phase). Most lesions exhibit definite enhancement patterns on dynamic scanning. As demonstrated in previous studies, the principal difference between benign and malignant liver lesions is their appearance during the late phase of contrast enhancement. Compared to normal liver parenchyma, malignant lesions are usually hypoechoic whereas benign lesions are usually hyperechoic or isoechoic. Other lesions in the liver may display particular patterns as follows:

- Haemangiomas: peripheral enhancement in the arterial phase, followed by central filling-in on the delayed images
- Focal nodular hyperplasia: early central spoke wheel-shaped enhancement and isoechoic appearance on late phase imaging
- Focal fatty sparing: enhancement pattern like the surrounding liver parenchyma, slightly brighter in late phase
- Regenerative nodule: isoechoic to the liver throughout the arterial, portal and parenchymal phases
- Liver abscess: can be very isoechoic

Figure. Pattern of focal nodular hyperplasia with contrast-enhanced ultrasonography



Furthermore, ultrasound is the recommended tool for monitoring patients at risk of developing hepatocellular carcinoma (HCC). Although larger HCCs can be accurately diagnosed by conventional ultrasound, detection of smaller malignant lesions in cirrhotic livers (≤2 cm) can be improved by CEUS. In fact, the capability of CEUS in detecting focal liver lesions is comparable to that of computed tomography (CT) or magnetic resonance imaging (MRI) (90% to 95%).[3-5] With this strategy, it is not only possible to detect and illustrate HCC nodules, but also to control the effects of ablation techniques on HCC as well.[6,7]

The combination of bubble contrast agents with the latest evolving equipment has the potential to transform the whole clinical role of ultrasound to provide a flexible low-cost diagnostic imaging strategy equivalent or superior to many existing modalities such as CT or MRI scans. Therefore, the putative role of CEUS in establishing vascular and perfusion patterns of focal liver lesions can significantly alter patient management and should therefore be promoted in routine clinical practice.

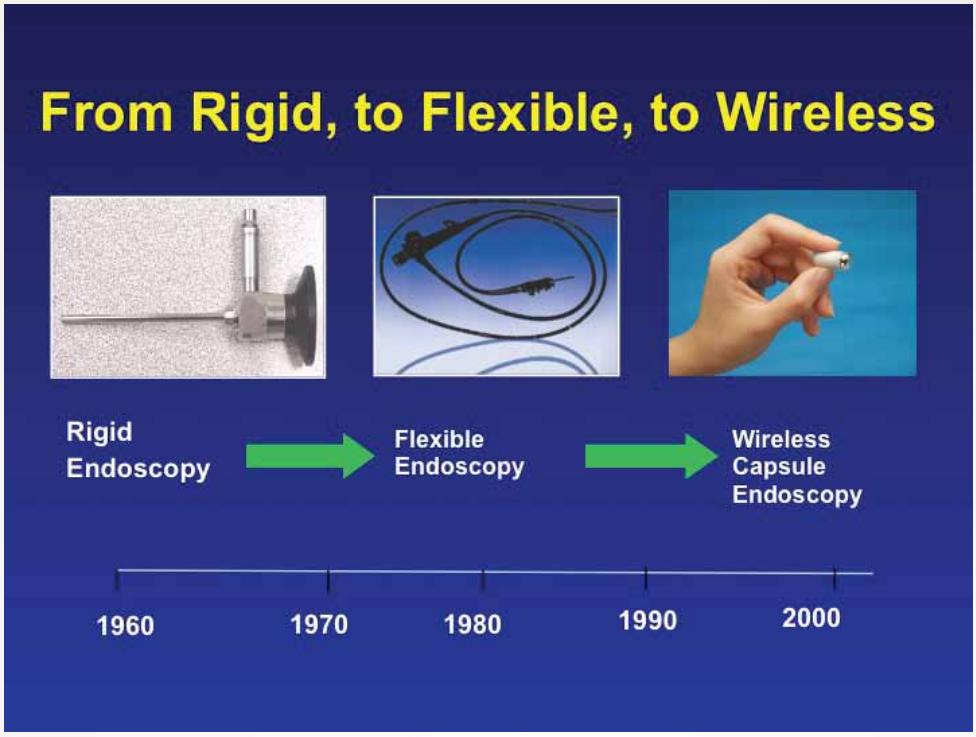
References
1. Wong GL, Xu HX, Xie XY, et al. *World J Radiol* 2009;1:25-36.
2. Claudon M, Cosgrove D, Albrecht T, et al. *Ultraschall Med* 2008;29:28-44.
3. Catala V, Nicolau C, Vilana R, et al. *Eur Radiol* 2007;17:1066-1073.
4. Fomer A, Vilana R, Ayuso C, et al. *Hepatology* 2008;47:97-104.
5. Nicolau C, Vilana R, Catalá V, et al. *Am J Roentgenol* 2006;186;158-167.
6. Kisaka Y, Hirooka M, Koizumi Y, et al. *J Clin Ultrasound* 2010;38:138-144.
7. Miyamoto N, Hiramatsu K, Tsuchiya K, Sato Y. *J Clin Ultrasound* 2010;38:339-345.

New advances in small bowel enteroscopy

Dr. Larry H. Lai
Institute of Digestive Disease
The Chinese University of Hong Kong
Hong Kong, China

Until recently, bleeding in the small intestines has been extremely difficult for clinicians to detect, with approximately 5% of bleeding episodes being missed on routine examination.[1] Indeed, diagnostic visualization techniques for gastrointestinal (GI) disease has come a long way from the rigid endoscopy used in the 1960s to the wireless capsule endoscopy that has redefined the concept of invasive imaging within the last decade.

Figure. Evolution of endoscopic techniques and devices for GI examination



First introduced around the year 2000, capsule endoscopy is now considered a first-line diagnostic procedure for many cases of small bowel disease, particularly when obscure GI bleeding (OGIB) is suspected.[2] With a probe measuring just 25 mm x 11 mm and weighing 3.7 g, the technique is not only well tolerated by patients but is also easy to use and interpret. Thus far, only a minimal risk of capsule retention (~1%) has been reported. A recent meta-analysis of 14 studies has shown that capsule endoscopy has a significantly higher yield than either barium radiography (42% vs 6%; $p<0.00001$) or push enteroscopy (63% vs 28%; $p<0.00001$) in the diagnosis of patients with OGIB.[3] Furthermore, a negative capsule endoscopy predicts a lower rebleeding rate compared with a positive endoscopy (11% vs 42%; $p<0.01$).[4] General disadvantages of capsule endoscopy include interobserver variation in data reporting, the inability to perform a complete small bowel examination, and its strictly diagnostic application.

In contrast, balloon-assisted enteroscopy allows confirmation of diagnoses by obtaining histologic samples, and also carries therapeutic potential. Capable of "total enteroscopy," double balloon enteroscopy (DBE) has a diagnostic yield of 50% to 80% based on studies involving more than 600 patients.[5-7] It has also demonstrated comparable results to capsule endoscopy.[8] Complications include perforation and pancreatitis in 0.4% and 0.2% of patients, respectively. There is also an increased risk for surgically altered anatomy leading to perforation in up to 3% of patients. Other limitations include difficulties in setting up the instrument and the need for a lengthy examination. Single-balloon enteroscopy (SBE),[9] introduced in 2007, is a simpler version of balloon-assisted enteroscopy with similar usefulness to DBE in a randomized, controlled trial.[10]

Newer types of enteroscopic devices are rapidly emerging, prompted by the need to simplify small bowel examinations. Spiral enteroscopy, which has been in use since 2008, requires an oral route intubation technique with an insertion depth of 240 to 250 cm and an insertion time of 16 to 19 minutes.[11] Spiral enteroscopy has a similar diagnostic yield to SBE[12] and is relatively safe, inducing bowel perforation and pancreatitis in only 0.03% of patients. Its distinct limitation is the risk for mucosal tears, thus making anal entry impossible and total enteroscopy difficult.

References

1. Szold A, Katz LB, Lewis BS. *Am J Surg* 1992;163:90-92; discussion 92-93.
2. Raju GS, Gerson L, Das A, Lewis B; American Gastroenterological Association. *Gastroenterology* 2007;133:1697-1717.
3. Triester SL, Leighton JA, Leontiadis GI, et al. *Am J Gastroenterol* 2005;100:2407-2418.
4. Macdonald J, Porter V, McNamara D. *Gastrointest Endosc* 2008;68:1122-1127.
5. Heine GD, Hadithi M, Groenen MJ, et al. *Endoscopy* 2006;38:42-4.
6. Ell C, May A, Nachbar L, et al. *Endoscopy* 2005;37:613-616.
7. May A, Nachbar L, Ell C. *Gastrointest Endosc* 2005;62:62-70.
8. Pasha SF, Leighton JA, Das A, et al. *Clin Gastroenterol Hepatol* 2008;6:671-676.
9. Kawamura T, Yasuda K, Tanaka K, et al. *Gastrointest Endosc* 2008;68:1112-1116.
10. May A, Färber M, Aschmoneit I, et al. *Am J Gastroenterol* 2010;105:575-581.
11. Akerman PA, Agrawal D, Cantero D, Pangtay J. *Endoscopy* 2008;40:974-978.
12. Khashab MA, Lennon AM, Dunbar KB, et al. *Gastrointest Endosc* 2010. [Epub ahead of print]

'Test and Treat' approach for the management of uninvestigated dyspepsia in Hong Kong – Is it still valid in an era of decline in *Helicobacter pylori* infection? (Summary of Dissertation 2010)

Dr. Danny Ka-Fai Siu
Resident Specialist
Department of Medicine
Prince of Wales Hospital
Hong Kong

Introduction

Dyspepsia refers to pain or discomfort that centers around the upper abdomen, which is recurrent for at least 4 weeks. Dyspeptic symptoms include pain, bloating, distension, fullness or nausea. It is one of the commonest digestive problems of the community, which accounts for 2-5% of the primary care consultations. In a study of 1866 American patients with dyspepsia who underwent endoscopy, 61% had no structural lesion to explain their symptoms. The exact etiology of functional dyspepsia is not clear, but it is thought to be caused by a number of factors, including disturbed gastroduodenal motility, abnormal increase in visceral sensation, impaired gastric accommodation and psychosocial factors. *Helicobacter pylori* may also play a significant role. The relationship between *H. pylori* infection and dyspepsia is supported by cross-sectional case control studies, which reported increased rate of *H. pylori* infection in dyspeptic subjects and antibacterial treatment would lead to significant and long term symptom improvement. A small but significant therapeutic benefit of *H. pylori* eradication has also been observed in a meta-analysis. In the pooled analysis by Moayyedi et al., there was a modest 10% reduction (95% CI = 6% to 14%) in symptoms when comparing *H. pylori* eradication to placebo, with number of patients needed to treat of 17 (95% CI: 11-33). Another study from the Singaporean group involving Asian population also found benefits in *H. pylori* eradication. At least 13-fold increase in chance of symptom resolution was achieved after successful eradication therapy. Therefore, *H. pylori* eradication does reduce symptoms in a subset of patients with functional dyspepsia.

Guidelines around the world now suggest the 'test and treat' approach or empirical proton pump inhibitor therapy for the management of dyspepsia in low risk group i.e. those young subjects without alarming symptoms. Even in areas with low *H. pylori* prevalence (<20%), it suggests that there is no difference between empirical proton pump inhibitors and 'test and treat' in terms of symptom resolution.

In recent years, there is a growing concern on the side effects of proton pump inhibitor therapy. Studies suggested that long term use of proton pump inhibitor may lead to increased risk of fracture, Clostridium difficile infection and pneumonia. On the other hand, it is not a concern with the short treatment duration of the *H. pylori* eradication regime.

Recently, we observed a decreasing trend in the prevalence of *H. pylori* infection in clinical practice (with *H. pylori* prevalence around 50% more than 10 years ago). Therefore, our prospective study tries to look into the current prevalence of *H. pylori* infection in dyspeptic subjects and hence, the validity of the 'test and treat' approach in the local population.

Objectives

The primary objective of this study was to determine the prevalence of *H. pylori* infection amongst low risk dyspeptic patients. The secondary objectives were to evaluate the validity of the 'test and treat' approach in the management of uncomplicated dyspepsia.

Methods

We conducted a prospective case series study on consecutive uninvestigated dyspeptic patients who were referred to our unit for upper endoscopy. Consecutive patients aged 18-75 during the period February 2008 to June 2009 were screened for eligibility. Recruitment was carried out at two regional hospitals in Hong Kong, the endoscopy suites of Prince of Wales Hospital and Alice Ho Miu Ling Nethersole Hospital. Study protocol with detailed explanation in both Chinese and English were provided to the subjects upon study recruitment. Verbal and written consents would be obtained before proceeding in accordance with the study protocol. Those who were not recruited into the study or refused consent would proceed to routine standard upper endoscopy and management.

We recruited those who presented mainly with epigastric pain, indigestion, abdominal bloating and heartburn for at least 4 weeks duration. We excluded subjects with alarm symptoms (Fig. 2). Alarm symptoms were defined as significant weight loss > 10% within 3 months, anemia with hemoglobin < 11g/dl, refractory vomiting or symptoms and signs suggestive of active gastrointestinal bleeding or surgical emergency i.e. tarry stool or perforation. Those who had been tested or treated for *H. pylori* infection before study enrollment were also excluded. Other exclusion criteria included previous gastric surgery, anti-reflux surgery, endoscopic mucosal resection or endoscopic submucosal dissection for early gastric cancer. Recent aspirin or NSAID use (within 30 days) or pregnant females were not eligible for the study. Those patients who received upper endoscopy in the past 1 year for known upper

gastrointestinal pathology were also excluded from the study. Successful candidates would have their demographic data recorded. They would then proceed to serology test for *H. pylori* infection (FlexPack HP) and standard upper endoscopy. The FlexPack HP was well validated in previous local study with good sensitivities 81.8% and specificities 83.6%[6]. Standard diagnostic gastroscope (GF XQ240, Olympus, Japan) would be used by qualified endoscopists for the endoscopic procedure. The esophagus, stomach and the duodenum were thoroughly examined for any lesions that might be related to dyspepsia. These lesions included reflux esophagitis, gastritis, duodenitis, peptic ulcer and neoplasm. Reflux esophagitis was defined as mucosal breaks proximal to the gastro-esophageal junction using the Los Angeles classification. Gastritis and duodenitis were defined as mucosal erythema, erosion or congestion in the stomach and duodenum, respectively. Ulceration was defined as circumscribed break in the mucosa 5mm or greater in diameter with perceptible depth. Four gastric biopsies were taken for histology (two from antrum and two from body) and another biopsy was taken from antrum for rapid urease test to check for *H. pylori* status. Additional targeted biopsies would also be taken from suspicious lesions e.g. early gastric cancer, according to the experience of individual endoscopist.

All histology sections were treated with hematoxyline and eosin stains. The slides would be evaluated by on site histopathologists of the two centers. They were blinded to the clinical and endoscopic findings of the corresponding subjects. Grading (mild, moderate and severe) would be given to the degree of gastritis, atrophy, intestinal metaplasia using the Updated Sydney Classification. Dysplasia and neoplasia would also be documented. *H. pylori* detected on histology section was considered the gold standard of diagnosing current infection.

Statistics

Statistical analysis was performed using the Statistical Package for the Social Science Version 11.5 (SPSS I for Windows, SPSS Inc., Chicago, Illinois, USA). Quantitative variables were expressed as means ± standard deviations (SD). A p value of <0.05 was considered as having statistical significance.

Descriptive statistics was used to summarize the subject characteristics and test results. The difference in demographic data among subjects was assessed by Chi-square test and one-way ANOVA test. Comparisons made between the *H. pylori* testing modalities were assessed by the Kappa statistic. The current prevalence of *H. pylori* infection in the patients with uninvestigated dyspepsia was compared with the prevalence observed 10 years ago using Chi-square test [1].

Results

498 patients were recruited during the study period from February 2008 to June 2009. Eight were excluded as gastric biopsy was not taken during the upper endoscopy. Finally 490 subjects were eligible and included in the analysis. The background demographics of the study subjects (grouped by age) were presented in Table 1. 99% were ethnic Chinese. Underlying cardiovascular diseases were more prevalent amongst patients aged over 55. Otherwise, there was no significant difference in background demographics among the three age groups. When comparing to our study 10 years ago, there was a significant drop in the overall prevalence of *H. pylori* infection from 50% to 32% ($p<0.001$). Subgroup analysis also showed a significant drop in the prevalence of infection for those < 45 years of age from 51% to 27.7% ($p<0.001$).

Using gastric histology as the reference standard, for those subjects aged 45 or below, the FlexPack HP test had a sensitivity of only 68.2%, which was substantially lower than that reported 10 years ago. The specificity, positive predictive value and negative predictive value were 89.6%, 75% and 86%, respectively. There was only fair correlation between FlexPack HP and gastric histology with kappa of 0.62 ($p<0.001$). Rapid urease test on the other hand correlated well with the histology result having kappa of 0.8 ($p<0.001$).

Amongst the 490 upper endoscopies performed, 6 subjects got peptic ulcer (1.2%). All of them were aged >45 ($p=0.075$) and the ulcers were not aspirin or NSAID related. Only two (33%) were non-H. pylori, non-NSAID ulcers, the rest being *H. pylori* infected. All of them were sub-centimeter in size with no stigmata of recent hemorrhage or malignant potential. Advanced lesions including intestinal metaplasia and gastric atrophy were found in 20 (4.1%) and 13 (2.7%) subjects respectively. They were more common in the older age group >45 years old, with intestinal metaplasia 5.6% Vs 1.2% ($p=0.019$) and gastric atrophy 3.4% Vs 1.2% ($p=0.146$).

Discussion

Our study subjects were patients that we encountered in primary care. Most of them were young and healthy who presented with dyspeptic symptoms without high risk features. We have observed a significant drop in the prevalence of *H. pylori* infection in this group of patients compared to those observed 10 years ago (50% Vs 32%, $p<0.001$). Our results showed an even lower prevalence when compared with previous local study by Yee et al a few years ago (32 Vs 40%). It is probably due to the different characteristics of the study subjects. *H. pylori* infection is well known to be associated with gastric atrophy and intestinal metaplasia, which may

subsequently evolve into cancer. In our study, we recruited dyspeptic subjects without prior known endoscopic lesions. Only a small minority of them were found to have gastric atrophy or intestinal metaplasia. To the contrary, Yee et al.'s subjects were known to have intestinal metaplasia. Therefore Yee et al.'s study should have a higher background *H. pylori* prevalence rate when compared with our population. The other postulation for the drop in *H. pylori* infection is believed to be related to the improvement in socio-economic condition. *H. pylori* is thought to be transmitted via oral-oral and oral-fecal route. Most acquisition of infection occurs in childhood. The rapid economic development, improved socio-economic living standards and personal hygiene over the years may halt the bacterial transmission from one generation to the other.

With the observed drop in prevalence of *H. pylori* infection, the performance of the previously locally validated FlexPack HP serology test seems unsatisfactory. With the low sensitivity (67.7%) and only fair co-relation with the standard histology test (Kappa=0.62), it bounds to miss quite a significant proportion of *H. pylori* infected cases. Therefore, it should not be used as a screening test in the 'test and treat' approach. On the other hand, the non-invasive urea breath test can be considered as another feasible alternative. It is simple to use and can be used as an office based procedure. It is also highly accurate and well validated in the local Chinese population few years ago. According to Wong et al., it had a high sensitivity 94.7%, specificity 97.7%, PPV 98.2% and NPV 93.5% respectively. Therefore, we suggested that urea breath test should be used instead as the non-invasive screening tool for low risk dyspeptic patients.

As *H. pylori* infection is still prevalent in our locality, the 'test and treat' strategy remains one of the feasible options available for the management of dyspepsia. However, the potential risk of missing lesion does exist and so different guidelines suggest different age limit for routine endoscopic examination. In our cohort, the incidence of peptic ulcer disease was 1.2% (6 out of 490) only. All the ulcers observed were minute in size and without bleeding stigmata. They were all over 45 years of age (p=0.075). *H. pylori* infection remains one of the commonest causes of peptic ulceration contributing two-thirds of the cases (4 out of 6). The rest were non-H. pylori, non-NSAID idiopathic ulcers. Recent study by Wong et al. showed that the bleeding non-H. pylori, non-NSAID ulcers carried a higher long term mortality and rebleeding risk. However, the natural history of non-bleeding idiopathic ulcers is still largely unknown. More studies are needed in this area before making recommendation on the management strategy of these cases. However, from our study, it suggests that they are rarely found in low risk dyspeptic patients.

The incidence of gastro-esophageal cancer that we observed 10 years ago was pretty low, only 0.9%. All gastric cancers observed at that time were *H. pylori* related. In our series, there was no gastro-esophageal malignancy found. One possible explanation for this may be due to the significant drop in *H. pylori* prevalence. However, we do find high grade lesions in our cohort including intestinal metaplasia and gastric atrophy, but the incidence was low. We had 20 (4.1%) subjects harboring intestinal metaplasia and 13 (2.7%) having gastric atrophy respectively. The prevalence of these lesions was even lower in the low risk group, only 1.2% in our cohort. The natural history of these lesions had been studied extensively but yet not thoroughly understood. It is postulated that they are pre-neoplastic in nature. Prospective cohorts have shown that atrophic gastritis is associated with the development of intestinal metaplasia and dysplasia. Leung et al. and colleagues also found a significant progression rate (at least 45%) of intestinal metaplasia to more advanced lesion in Chinese population, irrespective of *H. pylori* eradication. Subjects harboring these lesions also have a 3 to 5-folds increased risk of gastric cancer. Although these findings were largely based on epidemiological data, but the association between these lesions and gastric cancer is strong. However, with such a low prevalence of these lesions in low risk subjects, together with the low incidence of gastro-esophageal malignancy in our cohort, we suggest that 'test and treat' strategy carries no excessive risk in the low risk dyspeptic patients under 45 years of age.

Combining the above, with the dropping but still prevalent *H. pylori* infection rate and the rarity of advanced lesions in low risk dyspeptic subjects, 'test and treat' strategy is safe and feasible. However, serology test is not sensitive enough to screen for *H. pylori* infection in this setting. Urea breath test having a higher sensitivity and accuracy should be used instead as the preferred non-invasive screening tool.

Limitations and future directions

There are several limitations in this study. We only include subjects who were referred from the out-patient clinics in New Territories of Hong Kong. Though the study population represents typical dyspeptic patients from the primary care, the sample size is still small. The result would be more generalized if more centers and subjects could be involved. Besides, we do not have the chance to follow up the subjects after the initial visit. Therefore, the effect of *H. pylori* eradication on dyspepsia can not be fully established. It is considered to be important as no local study looks into the issue directly by means of randomized controlled trial. It can also help to study the disease course and evolution, which is important for patient management and future guidelines modification.

Conclusion

Although there is a significant drop in the *H. pylori* infection rate, it is still a common disease in low risk dyspeptic subjects. The 'test and treat' approach using highly accurate non-invasive test like urea breath test is still recommended for the management of low risk uninvestigated dyspepsia. Together with the small number of advanced lesions and low risk of malignancy, it is considered a safe option in the management of low risk uninvestigated dyspepsia patients.

Table 1. Background demographics of the study population stratified by age

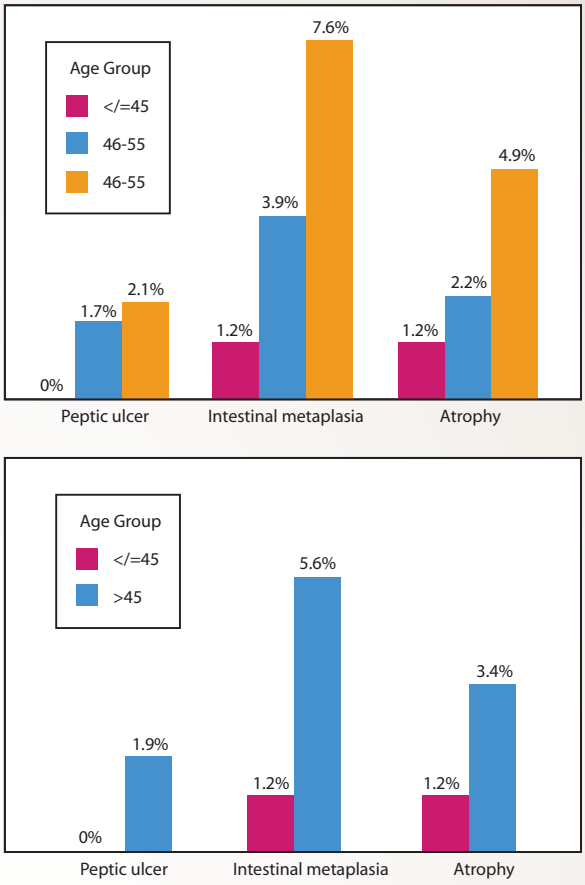
	Age</=45	Age 46-55	Age>55	p-value
Male	60 (35.7%)	60 (33.7%)	57 (39.6%)	0.55
Smokers	39 (23.2%)	13 (7.3%)	10 (6.9%)	<0.001
Drinker	36 (21.4%)	24 (13.5%)	18 (12.5%)	0.126
BMI kg/m2	21.6+/-4.1	22.7+/-3.0	22.8+/-4.4	0.282
Underlying medical illness				
Hypertension	4 (2.4%)	22 (12.4%)	49 (34%)	<0.001
Diabetes	1 (0.6%)	10 (5.6%)	18 (12.5%)	<0.001
IHD/CHF	0 (0%)	2 (1.12%)	5 (3.5%)	0.033
COPD	1 (0.60%)	0 (0%)	2 (1.4%)	0.28
CVA	1 (0.6%)	1 (0.56%)	1 (0.7%)	0.99
Cirrhosis	0 (0%)	4 (2.2%)	1 (0.69%)	0.104
Others	29 (17.3%)	26 (14.6%)	27 (18.8%)	0.6
NSAID use	1 (0.59%)	6 (3.37%)	8 (5.56%)	0.067
Aspirin use	0 (0%)	0 (0%)	0 (0%)	0.56
PPI use	9 (5.4%)	10 (5.6%)	9 (6.3%)	0.76
Family hisroty of gastric cancer	9 (5.4%)	19 (10.7%)	9 (6.3%)	0.14

Fig 2. Alarming symptoms in dyspeptic subjects

Alarm features

- Anaemia
- Evidence of acute/chronic bleeding
- Previous history of peptic ulcer
- Odynophagia
- Dysphagia
- Recurrent or persistent vomiting
- Unintentional weight loss

Fig 3. Prevalence of advanced lesions in different age groups



References

1. Joseph JY Sung. Incidence of gastroesophageal malignancy in patients with dyspepsia in Hong Kong : implications for screening strategies GIE 1999; 54(4):454-458
2. Ford AC, Moayyedi P. Current guidelines for dyspepsia management. Dig Dis. 2008;26(3):225-30
3. Selgrad M, Kandulski A, Malfertheiner P. Dyspepsia and *Helicobacter pylori*. Dig Dis. 2008;26(3):210-4
4. Reimer C, Søndergaard B, Hilsted L, Bytzer P. Proton-pump inhibitor therapy induces acid-related symptoms in healthy volunteers after withdrawal of therapy.Gastroenterology. 2009 Jul;137(1):80-7, 87
5. Talley NJ, Janssens J, Lauritsen K, Racz I, Bolling-Sternevald E. Eradication of *Helicobacter pylori* in functional dyspepsia: randomised double blind placebo controlled trial with 12 months' follow up. The Optimal Regimen Cures Helicobacter Induced Dyspepsia (ORCHID) Study Group. BMJ 1999; 318:833-837.
6. Laine L, Shoenfeld P, Fennetry MB. Therpay for *H. pylori* in patients with nonulcer dyspepsia. A meta-analysis of randomized controlled trials. Ann Intern Med 2001; 134:361-369.
7. Rokkas T, Sechopoulos P, Robotis I, Margantinis G, Pistiolas D. Cumulative *H. pylori* eradication rates in clinical practice by adopting first and second-line regimens proposed by the Maastricht III consensus and a third-line empirical regimen. Am J Gastroenterol. 2009 Jan;104(1):21-5.
8. Yee YK, Wong KW, Hui CK, Chan CK, Chan AO, Lam SK, Fung FM, Hung I, Wong BC. Prevalence and time trend of intestinal metaplasia in Hong Kong. J Gastroenterol Hepatol. 2009 May;24(5):896-9.
9. WM Wong, BCY Wong et al. ^{13}C breathe test without a test meal is highly accurate for detection of *Helicobacter pylori* infection in Chinese. Aliment Pharmaco Ther 2000; 14: 1353-1358
10. Wong GL, Wong VW et al. High incidence of mortality and recurrent bleeding in patients with Helicobacter pylori-negative idiopathic bleeding ulcers. Gastroenterology. 2009 Aug;137(2):525-31.

Update on management of functional dyspepsia and psychosomatic disorders

The current understanding of functional dyspepsia and the role of the enteric nervous system in psychosomatic disorders were discussed at a recent Update on Management of Functional Dyspepsia and Psychosomatic Disorders CME symposium held at the Mira Hotel on 19 May, 2011, by Prof. Benjamin WONG, Specialist in Gastroenterology and Hepatology, and President of The Hong Kong Society of Gastroenterology (HKSGE), and Prof. Siu Wa TANG, Emeritus Professor of Psychiatry at the University of California, Irvine, USA, and President of the Hong Kong Society of Biological Psychiatry (HKSBP). Sponsored by Lundbeck Hong Kong, the symposium was co-organized by HKSBP and HKSGE. Prof. Justin WU from the Institute of Digestive Disease, Department of Medicine and Therapeutics, The Chinese University of Hong Kong, and Prof. Jean WOO, Head of the Division of Geriatrics, Department of Medicine and Therapeutics, The Chinese University of Hong Kong chaired the meeting.

Managing functional dyspepsia and its psychosomatic manifestations

Prof. Benjamin WONG
Specialist in Gastroenterology and Hepatology
Honorary Clinical Professor
Department of Medicine, University of Hong Kong
President,
The Hong Kong Society of Gastroenterology

Functional dyspepsia (FD) is characterized by chronic or recurrent pain or discomfort centred in the upper abdomen lacking evidence of structural disease likely to explain symptoms. Patients with FD may experience a variety of psychological comorbidities, primarily generalized anxiety disorder (GAD) and major depressive disorder (MDD). While 25% of the general Western population is estimated to suffer from dyspepsia, FD may account for as much as 60% of patients presenting with dyspepsia [1].

FD aetiology remains complex, unclear

FD involves a large web of interacting factors affecting gastrointestinal motility and sensitivity. Reflected in studies showing greater prevalence of anxiety disorders and depression among FD patients than patients with organic dyspepsia [2,3], FD involves a stronger psychosocial component than organic dyspepsia. As a result, patients with FD experience a wide range of psychosomatic manifestations, including panic attacks, sweating, shaking, and restlessness. These symptoms often exacerbate the symptoms of FD, increasing suffering and presenting challenges for treatment. Recent studies have posited disruptions in the signalling of the brain–gut axis hormones ghrelin and orexin as the basis for the gastrointestinal disturbances associated with FD [4,5].

Treatment strategies

While many treatment options exist for FD, pharmacotherapy only benefits some patients. When determining treatment regimens, it is useful to classify a patient's FD based on their most predominant symptoms as dysmotility-like, ulcer-like, reflux-like, or non-specific FD. Selecting treatments based on the patient's type of FD should result in the greatest chance at symptom relief. For example, a patient with reflux-like or ulcer-like FD will be most likely to respond to treatment with proton-pump inhibitors (PPIs).

Classification of FD is supported by recent research underscoring the effectiveness of PPIs in certain subgroups of FD patients (Table) [6]. PPIs still offer marginal benefit over placebo in symptom control for unspecified FD [6].

While patients with organic dyspepsia have a higher prevalence of *Helicobacter pylori* infection, FD patients do not have a higher prevalence compared to the general population [7], indicating that *H. pylori* infection does not play a significant role in FD. Despite this, because *H. pylori*-positive (Hp+) patients are at increased risk of developing gastric cancer, this subgroup of FD patients should be treated for infection. A review of meta-analyses lends some support to the idea that Hp+ FD patients may actually experience some symptom relief when treated for infection [8].

Although studies remain inconclusive, antidepressants may eventually prove useful in reducing the symptoms of GAD and MDD that exacerbate FD symptoms. One meta-analysis showed a relative risk reduction of 0.55 in symptoms among FD patients [9], and a double-blind, randomized, controlled study comparing amitriptyline, escitalopram (Lexapro), and placebo for the treatment of FD is ongoing [10].

Conclusions

The diagnosis, classification, and treatment of FD remains challenging. In addition to gastrointestinal motility disruption and hypersensitivity, patients often suffer from a myriad of psychosomatic manifestations. While current treatment strategies rely heavily on PPIs and *H. pylori* eradication, antidepressants might also be useful for symptom control.

References

1. Talley NJ, et al. *Gastroenterol Int* 1991;4:145–60.
2. Magni G, et al. *Am J Psychiatry* 1987;144:1222–3.
3. Mahadeva S, et al. *J Gastroenterol Hepatol* 2011;26(Suppl 3):49.
4. Okumura T, et al. *J Gastroenterol Hepatol* 2011;26(Suppl 3):61.
5. Ogiso K, et al. *J Gastroenterol Hepatol* 2011;26(Suppl 3):67.
6. Wang WH, et al. *Clin Gastroenterol Hepatol* 2007;5:178-85.
7. Talley NJ, et al. *Aliment Pharmacol Ther* 2002;16(Supp1):58.
8. Laheil RJF, et al. *J Clin Gastroenterol* 2003;36:315–20.
9. Hojo M, *J Gastroenterol* 2005;40:1036–42.
10. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Functional Dyspepsia Treatment Trial. Available from: http://www.clinicaltrials.gov/ct2/show/NCT00248651NLM Identifier: NCT00248651.

Table. Meta-analysis of PPIs vs. placebo in subgroups of FD patients.
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Groups	Studies (N)	Patients (N)	Relative risk (95% CI)	Relative risk reduction (%) (95% CI)
Ulcer-like	3	1,405	0.87 (0.82–0.93)	12.8 (7.2–18.1)
Reflux-like	3	380	0.80 (0.66–0.98)	19.7 (1.8–34.3)
Dysmotility-like	3	583	0.95 (0.81–1.11)	5.1 (-10.9–18.7)
Dysmotility-like*	2	339	0.84 (0.69–1.02)	15.8 (-2.2–30.6)
Unspecified	4	289	0.08 (0.94–1.24)	–8.0 (-23.7–5.6)

*Excluding one heterogeneous study

The enteric nervous system and psychosomatic disorders

Prof. Siu Wa TANG
Emeritus Professor of Psychiatry,
University of California, Irvine, USA
President,
Hong Kong Society of Biological Psychiatry

The nature of psychosomatic disorders can often be difficult for physicians to properly assess, and even more difficult to treat. Unlike true physical disorders, psychosomatic disorders are manifestations of physical disabilities based on mental infirmities. As a result, mental processes constitute a major factor affecting treatment outcomes for psychosomatic disorders.

As physicians, we should always take a patient's complaints of persistent pain or discomfort seriously, even if they appear to be psychosomatic. Pain, imagined or otherwise, is always "real" for the patient. Although physicians often rely on reassurance with logic and authority, this seldom works, and the once commonly prescribed benzodiazepines only create dependence. While the role of the central nervous system (CNS) and autonomic nervous system (ANS) in psychosomatic disorders is well established, research continues to implicate the enteric nervous system (ENS) in these disorders as well.

Influence of the enteric nervous system on psychosomatic disorders

The ENS, often thought of as the "second brain," has a profound influence on how we feel. Communicating with the CNS through the vagus nerve and sympathetic nervous system, the ENS controls gastrointestinal motility and secretions in response to sensory signals. In dangerous situations, for example, the ENS acts with the rest of the ANS through sympathetic activation to suppress a wide range of visceral functions non-essential to the "fight or flight" response. The dual interaction of the sympathetic and parasympathetic nervous systems determines how our bodies react to stress, physical or otherwise.

But what happens when our nervous "orchestra" begins to play poorly? In such a vastly complex system, miscommunication is inevitable, and it can have serious consequences. For example, miscommunication may occur when threats (real or imagined) initiate an autonomic response, but the response fails to resolve after the initial stress subsides. Reverberant amygdala or insula activity can create a state of anxiety.

Some of the most common psychosomatic complaints from patients involve pharyngeal-oesophageal-gastrointestinal discomfort. Stress and anxiety is often strongly associated with such discomfort, as shown in studies indicating a significant association between irritable bowel syndrome (IBS) and anxiety and mood disorders [1,2]. In these cases, treating patients for anxiety may result in significant symptom relief.

Beyond gastrointestinal motility and sensitivity disorders, there is evidence that the ENS also plays an important role in metabolic disorders like diabetes. As indicated in recent studies [3,4], the gut–brain axis is a major glucoregulatory player, and its disruption can impair the body's anticipatory metabolic reflex that allows tissues to detect and handle nutrients. Such mishandling can result in dangerous hyperglycaemic episodes.

Conclusions

Physicians should take psychosomatic complaints and disorders seriously, as these disorders can have very real consequences for a patient's well-being. The ENS plays a prominent role in the body's response to stress, and disruption of brain–gut axis signalling can affect gastrointestinal motility, sensitivity, and even metabolism.

References
1. Shen L, et al. *J Gastroenterol Hepatol* 2009;24:1885–90.
2. Mykletun A, et al. *BMC Gastroenterol* 2010;10:88.
3. Burcelin R. *Diabetes Metab* 2010;36(Suppl 3):54–8.
4. Migrenne S, et al. *Curr Opin Pharmacol* 2006;6:592–7.

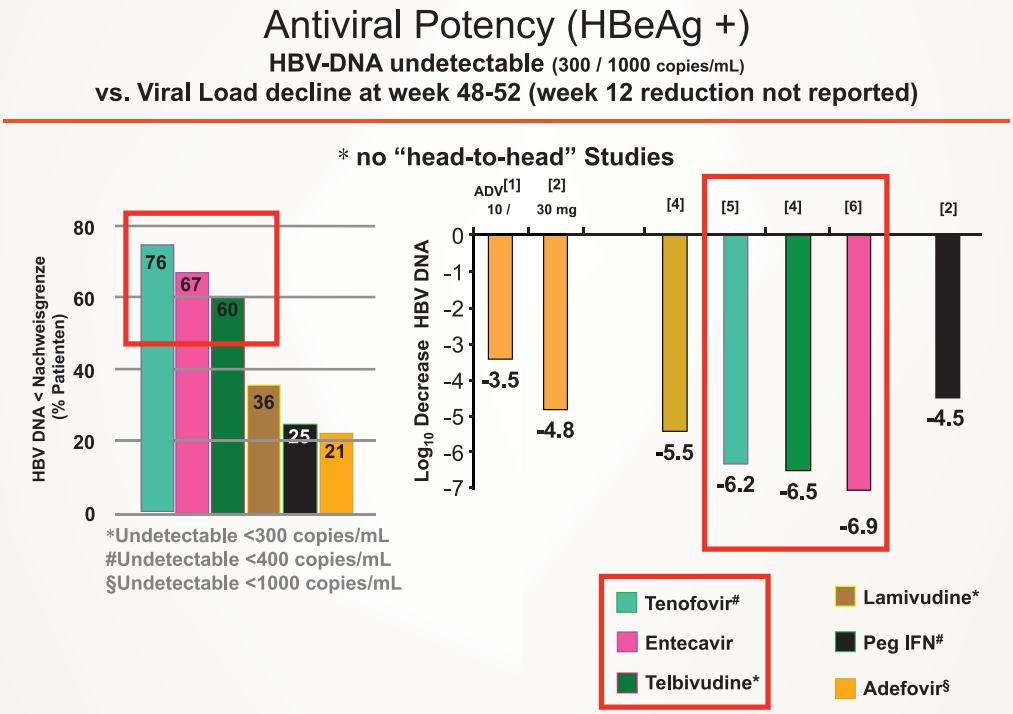
Understanding HBV resistance to prevent treatment failure

Prof. Hans L. Tillmann
Duke University Medical Centre
Duke Clinical Research Institute
Durham, NC, USA

Over the past several years, the emergence of new therapies for hepatitis B virus (HBV) infection has been accompanied by significant improvements in viral suppression and hepatic recovery from chronic infection. Drug resistance not only to the nucleoside/nucleotide analogues lamivudine and adefovir, but also to telbivudine, is therefore particularly concerning. After the emergence of resistance, the issue of whether combination therapy or switching to a more potent drug or immunomodulator (eg, interferon) is more effective in achieving sustained virological or biochemical response, remains controversial.

The three most potent agents-tenofovir, telbivudine and entecavir – have shown significant benefits in terms of viral load reduction from baseline (6.2 to 6.9 log reductions in serum HBV-DNA) after only 1 year of therapy. Furthermore, a lower baseline serum HBV-DNA level was associated with better virological response among chronic hepatitis B patients who are HBeAg-positive. Although HBV-DNA monitoring strategies can predict therapeutic outcomes and the likelihood of drug resistance, the relative potency of these drugs may not be applicable in cases where viral loads are low.[1-5]

Figure. Varying potency of different antiviral drugs



Patients who fail to achieve a primary response, defined as less than a 2-log decrease in serum HBV-DNA after at least 6 months of therapy, should receive alternative treatment. Because of their high potency and lack of cross-resistance, both entecavir and tenofovir are considered ideal candidates for first-line therapy. However, the high cost of these drugs makes the practice of starting with telbuvidine and then switching to entecavir or tenofovir once resistance develops attractive.[6,7] There is an important difference in starting with telbivudine compared with starting with lamivudine, as resistance to lamivudine leaves only the option to switch to tenofovir or add adefovir, due to the lamivudine resistance pattern including both rtM204V and rtM204I. In contrast, resistance to telbivudine is linked to rtM204I, which still leaves entecavir as a viable option should telbivudine resistance develop.

References
1. Lok AS, McMahon BJ. *Hepatology* 2007;45:507-539.
2. Marcellin P, Chang TT, Lim SG, et al. *N Engl J Med* 2003;348:808-816.
3. Yoo BC, Kim JH, Lee KS, et al. *Hepatology* 2005;42:270A.
4. Heathcote E, Gane E, DeMan R, et al. *Hepatology* 2007;46: 861A.
5. Lau GK, Piratvisuth T, Luo KX, et al. N *Engl J Med* 2005;352:2682-2695.
6. Reijnders JG, Deterding K, Petersen J, et al. *J Hepatol* 2010;52:493-500.
7. Puchhammer-Stöckl E, Mandl CW, Kletzmayr J, et al. *J Infect Dis* 2000;181:2063-2066.

30th ANNIVERSARY SCIENTIFIC MEETING of The Hong Kong Society of Gastroenterology

Date : 9 December 2011 (Friday)

Venue : Ballroom, 3/F, Sheraton Hong Kong Hotel & Towers
20 Nathan Road, Kowloon, Hong Kong

Organizing Committee : Dr. Yat-Wah Yeung (Chairman)
Dr. Wai-Cheung Lao
Dr. Hon Yuen
Dr. Chi-Ming Lam
Dr. Wai-Fan Luk

6:45 pm	Cocktails
7:30 pm	Guests to be Seated (Meeting opened by MCs: Doctors Judy Ho and Vincent Leung)
7:35 pm	Scientific Lecture 1: **"The Future Development in Gastroenterology and Endoscopy"** *Professor Joseph J.Y. Sung*
7:50 pm	Scientific Lecture 2: **"The Future Development in Hepatology"** *Professor Ching-Lung Lai*
8:05 pm	Opening Ceremony Welcome Speech ***Professor Benjamin Wong*** *President of The Hong Kong Society of Gastroenterology* Speech by Guest of Honour ***Dr. York Y.N. Chow, GBS, JP*** *Secretary for Food and Health* Speech by Guest of Honour ***Mr. Anthony T.Y. Wu, GBS, JP*** *Chairman, Hospital Authority* Toasting & cake-cutting (Photo taking) End of Ceremony
8:50 pm	Dinner, Performance & Game

(More information will be available soon from www.hksge.org)

31st Annual General Meeting cum Scientific Meeting of The Hong Kong Society of Gastroenterology

Date : 8 March, 2012 (Thursday)

Venue : Level 7, Langham Place Hotel
555 Shanghai Street
Mongkok, Kowloon

President : Professor Benjamin C.Y. Wong

Organizing Chairman : Professor Justin C.Y. Wu

(Topic to be confirmed)
Professor Kentaro Sugano
Department of Medicine
Division of Gastroenterology
Jichi Medical School, Tochigi-ken, Japan
President, The Japanese Society of Gastroenterology
Vice President, Asian Pacific Association of Gastroenterology

Digestive Disease Case Discussion
(Topic, presenters and discussants to be confirmed)

(More information will be available soon from www.hksge.org)

Welcome! New Members

Dr. Wai-Ying CHU
Department of Medicine & Geriatrics
Princess Margaret Hospital

Dr. Shun-Fung SZE
Department of Medicine
Queen Elizabeth Hospital

Dr. Kai-Fung TSANG
Department of Medicine & Geriatrics
Princess Margaret Hospital

Dr. Pui-Kei YUEN
Department of Medicine
Queen Elizabeth Hospital

Highlights

Conjoint Scientific Symposium: Updates in Management of Inflammatory Bowel Disease

Co-organized by : Hong Kong IBD Society
The Hong Kong Society of Gastroenterology
Hong Kong Society of Parenteral and Enteral Nutrition

Date : 18 January 2011

Venue : Nathan Room III - Hall, 1/F., Eaton Hotel,
380 Nathan Road, Kowloon, Hong Kong

Sponsored by : Otsuka Pharmaceutical (H.K.) Ltd.

6:30 pm - 7:00 pm	Reception
7:00 pm – 8:00 pm	Chairman: Prof. Justin Wu *Professor, Institute of Digestive Disease* *The Chinese University of Hong Kong* 1. "Biologic treatment of inflammatory bowel disease" Dr. Dorothy Chow *Clinical Assistant Professor (Honorary)* *Prince of Wales Hospital, The Chinese University of Hong Kong* 2. "Dietary issues in management of inflammatory bowel disease" Ms. Emily Yeung *HKWC Head & Senior Dietitian* *Department of Dietetics* *Queen Mary Hospital*
8:00 pm	Dinner

The conjoint scientific symposium was attended by 50 medical professionals, gastroenterologists and dietitians. Most of them stayed for dinner and continued exchanging their views.

Joint Scientific Symposium: Update on Management of Functional Dyspepsia & Psychosomatic Disorders

Co-organized by : The Hong Kong Society of Gastroenterology
Hong Kong Society of Biological Psychiatry

Date : 19 May 2011

Venue : Ballroom 4, 18/F, The Mira Hotel, Kowloon

Sponsored by : Lundbeck Hong Kong

6:15 pm – 7:15 pm	Cocktail reception
7:15 pm – 7:50 pm	Chairperson: Prof. Justin C.Y. Wu Lecture I by Prof. Benjamin C.Y. Wong (University of HK)) "Update on Management of Functional Dyspepsia and Psychosomatic Manifestations"
7:50 pm – 8:30 pm	Chairperson: Prof. Jean Woo Lecture II by Prof. Siu-Wa Tang (University of California) "Psychosomatic Disorders are Medical Disorders: Recent Advances"
8:30 pm – 8:50 pm	Panel Discussion chaired by Dr. M.C. Wong
8:50 pm – 10:00 pm	Dinner

The symposium was well attended by 123 medical practitioners including gastroenterologists and psychiatrists. Most of them stayed and enjoyed the dinner afterwards.

Joint Scientific Symposium: "Safe and Effective Use of Sodium Phosphate as a Bowel Preparation"

Co-organized by : The Hong Kong Society of Gastroenterology
Hong Kong Society of Endoscopy Nurses

Date : 26 May 2011

Venue : Loong Yat Heen, 2/F, The Kowloon Hotel, Kowloon

Sponsored by : LF Asia

6:30 pm – 7:00 pm	Registration
7:00 pm – 8:00 pm	Chairman: Dr. Yeung Yat Wah Lecture by Dr. David H. Balaban (from U.S.A.) "Safe and Effective Use of Sodium Phosphate as a Bowel Preparation" Discussion
8:00 pm – 9:30 pm	Dinner

The symposium was attended by 16 doctors and 30 endoscopy nurses. Most of them stayed and enjoyed the dinner afterwards.

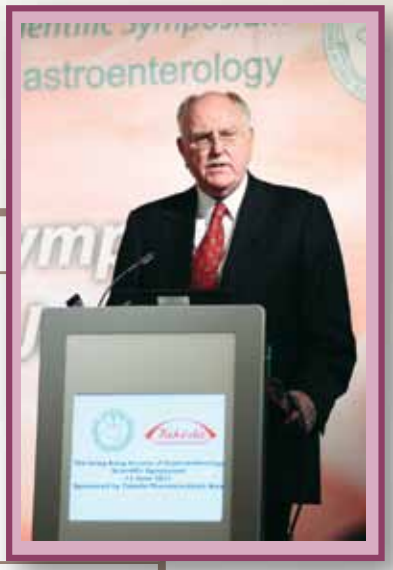
Highlights

Scientific Symposium: "Gastroesophageal reflux disease (GERD)"

Date : 11 June 2011

Venue : JW Marriott Hotel, Hong Kong

Sponsored by : Takeda Pharmaceuticals Asia



6:30 pm - 6:45 pm	Welcome & Introduction
6:45 pm – 7:45 pm	Chairman: Prof. Benjamin Wong Lecture by Prof. David Peura (from U.S.A.) "Gastroesophageal reflux disease (GERD): Answers for an Ongoing Problem and Clinical Challenge • obese patients • Elderly • Nocturnal Heartburn • Patient taking Clopidogrel"
7:45 pm – 8:00 pm	Q&A and Discussion
8:00 pm	Dinner

The symposium was attended by local doctors as well as overseas delegates after attending the IDD Forum.

Major Meetings

22-26 October 2011
19th UEGW Stockholm 2011
Organizer: United European Gastroenterology Federation
Location: Stockholm, Sweden
Website: www.uegw11.uegf.org/

28 October – 2 November 2011
ACG 2011 Annual Scientific Meeting & Postgraduate Course
Organizer: American College of Gastroenterology
Location: Washington, DC, U.S.A.
Website: www.acg.gi.org/acgmeetings/

4-8 November 2011
The Liver Meeting 2011 & AASLD's 62nd Annual Meeting
Organizer: The American Association for the Study of Liver Diseases
Location: San Francisco, CA, USA
Website: www.aasld.org/thelivermeeting/Pages/default.aspx

9-12 November 2011
21st World Congress of the International Association of Surgeons, Gastroenterologists and Oncologists
Organizer: International Association of Surgeons, Gastroenterologists and Oncologists
Location: Tokyo, Japan
Website: www.iasgo2011.org

20 November 2011
International Symposium of Hepatology 2011 & 24th Annual Scientific Meeting of the Hong Kong Association for the Study of Liver Diseases
Organizer: The Hong Kong Association for the Study of Liver Diseases
Location: HKCEC, Hong Kong
Meeting Secretariat: Tel: (852) 2155 8557
Email: meeting.hk@ubm.com

29 November - 2 December 2011
Ninth Annual International Congress Frontiers in Intestinal and Colorectal Disease
Organized by: St Mark's Hospital Academic Institute
Location: London, United Kingdom
Website: www.stmarkshospital.org.uk/frontiers

29 November - 2 December 2011
European Colorectal Congress
Organized by: Department of Surgery, Kantonsspital St. Gallen
Location: St.Gallen, Switzerland
Website: www.colorectalsurgery.eu/

1-3 December 2011
2nd APASL Hepatocellular Carcinoma Conference (9th APASL STC)
Organized by: Asian Pacific Association for the Study of the Liver
Location: Jeju, Korea
Website: www.apasl-stc2011.org

13-15 December 2011
26th International Workshop on Therapeutic Endoscopy
Organized by: Institute of Digestive Disease,
The Chinese University of Hong Kong
The Nethersole School of Nursing,
The Chinese University of Hong Kong
Hong Kong Society of Digestive Endoscopy
CUHK Jockey Club Minimally Invasive Surgical Skills Centre
Location: Prince of Wales Hospital, Shatin, N.T., Hong Kong
Website: www.hksde.org

19-21 December 2011
3rd International Endolaparoscopic Surgery Symposium (IESS)
Organizers: Hong Kong Society for Coloproctology,
Hong Kong Society of Minimal Access Surgery,
Minimal Access Surgery Training Centre,
HKEC Training Centre for Healthcare Management and Clinical Technology
Location: Pamela Youde Nethersole Eastern Hospital, Hong Kong
Website: www.coloproctology.org.hk

13-15 January 2012
The 2nd Asian Pacific Topic Conference: *Asian Pacific Helicobacter Pylori Meeting 2012*
Hosted by: Malaysian Society of Gastroenterology
Location: Kuala Lumpur, Malaysia
Website: www.apagehp2012.org

14 January 2012
Hong Kong Surgical Forum – Winter 2012
Organizer: Department of Surgery,Li Ka Shing Faculty of Medicine, The University of Hong Kong; Queen Mary Hospital & Hong Kong Chapter of the American College of Surgeons
Location: Queen Mary Hospital, Hong Kong

16-19 February 2012
22nd Conference of the Asian Pacific Association for the Study of the Liver
Organizer: Asian Pacific Association for the Study of the Liver
Location: Taipei, Taiwan
Website: www.apasl2012taipei.org

(More information is available from www.hksge.org/events)

HKSGE Secretariat Room C, 7/F, Thomson Commercial Building, 8 Thomson Road, Wanchai, Hong Kong
Tel: (852) 2869 5933 | Fax: (852) 2869 9533 | E-mail: gastro@hksge.org | Website: www.hksge.org