Welcome to our June 2017 Newsletter!

The year of 2017 will see continuous efforts of our Society in organizing activities to promote the advancement of gastroenterology both at local and regional level. The Annual General Meeting cum Scientific Meeting was held on 2 March 2017 during which honorary fellowship was bestowed upon Professor Kwong-Ming Fock, The Senior Consultant, Gastroenterology and Hepatology, Division of Gastroenterology, Department of Medicine, Changi General Hospital, Singapore. On regional level, our Society, with great honour, is one of the host organizations of the Asian Pacific Digestive Week 2017. Themed “The Future in Digestive Disease”, APDW 2017 will be held in Hong Kong on 23-26 September 2017. World renowned experts will be invited to provide comprehensive insights and advances in gastroenterology. You are welcome to participate, to share knowledge and expertise with colleagues, for a valuable and enjoyable experience. I look forward to seeing you all at the APDW 2017.

I would like to thank Dr. Wai-Fan Luk for organizing the Annual General Meeting cum Scientific Meeting on 2 March 2017, Professor Wai-Keung Leung for editing this Newsletter, Professor Kwong-Ming Fock, Dr. George Webster, Dr. Heyson C.H. Chan, Dr. Marta Jiménez Toscano, Dr. Kelvin L.Y. Lam and Dr. Raymond S.Y. Tang for their scientific updates in this Newsletter and last but not least, all the sponsors who rendered support and contributions to the Society.

The next newsletter will be published in December 2017.

Professor Justin C. Y. Wu
President, The Hong Kong Society of Gastroenterology

From H. pylori to Colorectal Disorders: a personal perspective

In 1984, I was attached to Queen Elizabeth Hospital in Adelaide, Australia and Sir Charles Gairdner Hospital in Perth when a landmark paper “Unidentified Curved Bacilli in the Stomach of Patients with Gastritis and Peptic Ulceration” was published in The Lancet by Barry J. Marshall and Robin Warren. Their discovery of the bacterium Helicobacter pylori and its role in gastritis and peptic ulcer disease has since made a paradigm shift in medical practice of upper gastrointestinal (GI) diseases. This was also the starting point of my personal journey from H. pylori to colorectal disorders.
First research on *H. pylori*

On return to Singapore, my initial work included evaluating Clotest as a reliable diagnostic test for *H. pylori* infection. In the local population, the sensitivity and specificity of Clotest were found to be 77% and 96% respectively with negative predictive value of 63% and positive predictive value of 98%, affirming that Clotest was a rapid, sensitive and highly specific indicator for *H. pylori* infection. Using locally validated serological test, an epidemiology study looking at the prevalence of *H. pylori* infection in Singapore was then conducted. The role of *H. pylori* infection and non-steroidal anti-inflammatory drugs (NSAIDs) in peptic ulcer and its complications was unclear. A study in 2000 found that the use of NSAIDs and advanced age increased the risk of bleeding Gastric Ulcer and there was a synergistic effect between these factors. In 2016, the observation still stands correct and is included in the Maastricht V consensus.

**H. pylori and its associated diseases**

**Dyspepsia**

Dyspepsia is defined as upper abdominal pain or discomfort that is episodic or persistent and associated with belching, bloating, heartburn, and nausea or vomiting. Dyspepsia was believed to be due to gastric motility and other factors. A study was conducted to determine whether delayed gastric emptying of indigestible solids and *H. pylori* infection were associated with dysmotility-like dyspepsia. In the observational study, subjects with gastroparesis had a higher chance of developing dysmotility-like dyspepsia (odds ratio (OR), 2.5) than subjects with normal gastric emptying. Subjects with *H. pylori* and gastroparesis had an increased likelihood of developing dysmotility-like dyspepsia (OR, 4.3) than if either factor were present alone (Figure 1). A working party on functional dyspepsia in 1998 wrote the ‘Management guidelines for uninvestigated and functional dyspepsia in the Asia-Pacific region’. A treatment algorithm for managing patients presenting with new-onset dyspepsia was provided. With an empirical anti-secretory or prokinetic agent, followed by non-invasive *H. pylori* testing, treated patients who did not respond or relapse were then endoscoped. This was adopted in Singapore’s Ministry of Health (MOH) guidelines in 2004. The recent Kyoto Consensus on *H. pylori* gastritis was similar to these guidelines as well.

A randomized, double-blind study was performed to compare the efficacy of *H. pylori* eradication against prokinetics in *H. pylori*-infected functional dyspepsia patients. With *H. pylori* eradication, 31.0% had complete symptom resolution (GDSS 0 or 1) at 12 months as compared with 23.7% with prokinetics (a nonsignificant difference). At 12 months, global symptomatic improvement was seen in 62.0% of the *H. pylori* eradication group compared with 67.8% of the prokinetics group. A significant finding of the study was that improvement in symptom score was maximal at 6 months post therapy (Figure 2).

**Gastric cancer**

The recognition of *H. pylori* infection as the cause of gastric cancer by International Agency for Research in Cancer (IARC) was an important development since the discovery of the association between *H. pylori* and peptic ulcers. By 2014, there was emerging evidence that *H. pylori* eradication in high gastric cancer regions can lead to a decline in the incidence of this highly lethal disease. A randomised controlled trial showed that *H. pylori* eradication can reduce gastric cancer by 39%.

A more recent systematic review and meta-analysis also showed that eradication therapy reduced the incidence ratio of gastric cancer in asymptomatic infected individuals by 38% and in individuals after endoscopic resection of early gastric cancer by 46%. *H. pylori* eradication is effective in primary and tertiary prevention.

**Figure 1.** Association of *H. Pylori* infection, gastric paresis and functional dyspepsia

<table>
<thead>
<tr>
<th></th>
<th>Controls, n=32</th>
<th>Patients, n=72</th>
<th>Odds ratio (95% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>H. pylori</em>-positive</td>
<td>9</td>
<td>23</td>
<td>1.3 (0.5-3.7)</td>
</tr>
<tr>
<td>Paresis (biol) - positive</td>
<td>4</td>
<td>17</td>
<td>2.2 (1.5-7.4)</td>
</tr>
<tr>
<td>Paresis (biol) - negative, <em>H. pylori</em>-negative</td>
<td>20</td>
<td>38</td>
<td>1.0</td>
</tr>
<tr>
<td>Paresis (biol) - positive, <em>H. pylori</em>-negative</td>
<td>3</td>
<td>11</td>
<td>1.9 (0.2-7.6)</td>
</tr>
<tr>
<td>Paresis (biol) - negative, <em>H. pylori</em>-positive</td>
<td>8</td>
<td>17</td>
<td>1.3 (0.3-3.6)</td>
</tr>
<tr>
<td>Paresis (biol) - positive, <em>H. pylori</em>-positive</td>
<td>1</td>
<td>6</td>
<td>4.0 (2.5-40.0)</td>
</tr>
</tbody>
</table>

*Adjusted for age, sex, and ethnic group by multiple logistic regression.
if either factor were present alone
H. pylori
Subjects with
(odds ratio (OR), 2.5) than subjects with normal gastric emptying.

had a higher chance of developing dysmotility-like dyspepsia
infection were associated with dysmotility-like solids and
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A study in 2000 found that the use of NSAIDs and advanced age
drugs (NSAIDs) in peptic ulcer and its complications was unclear.
The role of
infection and non-steroidal anti-inflammatory
epidemiology study looking at the prevalence of
prevention.
Controversy today - Protective role of H.pylori against IBD
The inverse relationship between Inflammatory Bowel Disease (IBD) and H.pylori infection was first noted by El-Omar and was postulated to be due to the use of sulfasalazine. Several meta-analyses showed that H. pylori infection was negatively associated with IBD and that H. pylori might exert an immunomodulatory effect in IBD. 
Enterohepatic Helicobacter Species (EHS) was also inversely associated with H.pylori infection, thus suggesting a complex microbiota ecosystem. However, to date only two case reports reported the development of IBD after H.pylori eradication therapy—“Onset of Crohn’s disease after Helicobacter pylori eradication” and “Clinical onset of Crohn’s disease after eradication therapy of H.pylori infection”. More work need to be done to investigate if H.pylori eradication therapy causes IBD.

Conclusion
The discovery of the Gram negative curved bacillus H.pylori has shaped the practice of gastroenterology. H.pylori has been shown to be associated with peptic ulcers, have a synergistic effect with NSAIDs, and increases the risk of gastric cancer. The inverse associations with IBD are intriguing but this would be greatly explored in time to come.

References
Novel treatments for autoimmune liver diseases

There have been few new medical therapies for autoimmune liver diseases such as autoimmune hepatitis (AIH), primary sclerosing cholangitis (PSC), primary biliary cholangitis (PBC, formerly known as primary biliary cirrhosis) and IgG4-related sclerosing cholangitis (IgG4-SC) over the last 5 years. Prolonged treatment of AIH to control inflammation and reduce fibrotic progression to end-stage liver disease is often successful. International guidelines recommend initial therapy with oral prednisolone 0.5–1.0 mg/kg/day and maintenance therapy with azathioprine 2 mg/kg/day, generally initiated 2–4 weeks later.1 Almost every patient with AIH started on standard-dose prednisolone should respond to treatment. If there is no immediate improvement in transaminases, possible non-compliance or misdiagnosis should be considered.

Maintenance therapy for AIH
Patients who cannot tolerate azathioprine should be treated with another agent, typically mycophenolate mofetil (MMF). Treatment-naive cirrhotic patients may benefit from budesonide plus azathioprine maintenance therapy, especially if they are at high risk for steroid side effects. A study comparing budesonide 9 mg/day plus azathioprine 1–2 mg/kg/day versus prednisolone plus azathioprine for 6 months found that budesonide normalized alanine transaminase more frequently than prednisolone.2 Moreover, 47% of budesonide versus 18% of prednisolone recipients achieved complete remission without steroid-related side effects. Note, however, that budesonide cannot be used in the setting of advanced liver disease or portal hypertension.

Typically, 10–15% of patients fail to respond to standard treatment. Possible reasons include non-compliance, the presence of overlap disease or a true non-response. Management of true non-responders may be difficult, but the general recommendation is to increase the steroid dose (up to 70–100 mg/day prednisolone or >20 mg/day budesonide).

Although there is ongoing debate regarding whether to stop steroid therapy or to continue at low doses in combination with azathioprine for maintenance, at least 3 years of maintenance treatment is required, including at least 2 years’ treatment after biochemical remission. Liver biopsy is recommended to guide discontinuation. Approximately 50–90% of patients will relapse, usually within 12 months, and these patients will require permanent maintenance therapy with azathioprine and/or low-dose prednisolone.

Primary biliary cholangitis
The standard treatment recommended for patients with PBC is ursodeoxycholic acid (UDCA) 13–15 mg/kg/day. A good response predicts 95% transplant-free survival at 14 years, which is very reassuring for patients. However, there is some debate regarding its role in early-stage disease, as data have shown a survival advantage for patients with moderate-to-severe, but not mild, disease. Prednisolone 10 mg/day for 9 months, administered in combination with UDCA, may improve disease parameters in early-stage disease, but should not be given as standard therapy because of concerns regarding marked acceleration of bone demineralization. Another agent showing promise in early disease is budesonide — used in combination with UDCA, budesonide 6–8 mg/day may prevent progression in cases with no response to UDCA alone. However, it is contraindicated in the setting of cirrhosis.

Primary sclerosing cholangitis
Unfortunately, there is no proven medical therapy to delay progression in PSC. However, it is crucial to differentiate PSC from IgG4-SC, which is treatable.

IgG4-related sclerosing cholangitis
A diagnosis of IgG4-SC should be considered for all patients with PSC who have other organ involvement. Although there are no randomized controlled trials of potential agents for IgG4-SC, case series data indicate that prednisolone 30–40 mg/day on a reducing regimen can lead to dramatic and rapid improvements. Maintenance prednisolone 2.5–5 mg/day in combination with azathioprine 2 mg/kg/day is recommended for patients who show a biochemical and radiological response to initial therapy. Rituximab may also be beneficial in the case of relapse.3,4 Non-responders may have been incorrectly diagnosed or have chronic/fibrotic disease.

Patients with overlap syndromes, such as PBC-AIH and PSC-AIH, will generally respond less well to therapy than those with AIH or PBC alone, although 10-year transplant-free survival is much better in PSC-AIH patients treated with UDCA plus immunosuppression compared with those with classical PSC (100% vs 43%).5,7

Summary
It is crucial to correctly diagnose conditions, such as AIH and IgG4-SC, that are likely to respond to steroid or immunosuppressive therapy. The presence of overlap syndromes should be considered in PBC or PSC patients who show good responses to therapy.

References

“If a patient has a diagnosis of PSC, but they have unexplained pancreatic disease, consider IgG4-SC as an alternative diagnosis”

Dr. George Webster
Consultant Gastroenterologist and Hepatologist
Clinical Lead for HPB Medicine
University College London Hospitals,
Honorary Consultant Gastroenterologist
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London, U.K.
Biologic therapy for inflammatory bowel disease

Biologics are genetically engineered agents manufactured from living organisms. In inflammatory bowel diseases (IBD), such as Crohn’s disease, biological drugs target specific molecular components of the inflammatory process in order to halt the long-term evolution of IBD from an inflammatory condition to more complicated penetrating and restructuring disease.1 Early aggressive biological therapy is particularly effective at stopping this process in patients who are at high risk for a poor prognosis or who are young at the time of disease onset (Figure 1).2 Current targets for biological therapy include tumour necrosis factor alpha (TNF-α), α4β7 integrins, interleukins (IL), and the Janus kinase/signal transducers and activators of transcription (JAK-STAT) and transforming growth factor (TGF)-β pathways.3

Anti-TNF agents

The only anti-TNF agents currently available in Hong Kong are infliximab, a recombinant chimeric antibody, and adalimumab, a human chimeric antibody. No head-to-head comparison of infliximab and adalimumab has been performed for Crohn’s disease, but a retrospective cohort study reported that the two had comparable effectiveness.4

Combination therapy with an anti-TNF agent and an immunosuppressant is more effective than anti-TNF monotherapy. A randomized, double-blind trial that compared azathioprine monotherapy, infliximab monotherapy and the two-drug combination found that patients with moderate-to-severe Crohn’s disease who received combination therapy were significantly more likely to achieve corticosteroid-free clinical remission after 26 weeks (57% vs 44% and 30% for the infliximab and adalimumab monotherapy groups, respectively).5 Although there is an increased risk of lymphoma associated with immunosuppressant use, the risk is very small with combination therapy (estimated annual risk, 6 per 10,000 patients treated).6

Anti-α4β7 integrin – vedolizumab

Vedolizumab is a monoclonal antibody that targets the α4β7 integrin and selectively prevents infiltration of leukocytes into the gastrointestinal mucosa.1 It induces a durable clinical response or clinical remission in patients with ulcerative colitis, but the response is better in patients who have not previously failed anti-TNF therapy.7 It is not as effective in Crohn’s disease.8 A real-world, retrospective cohort study of 212 patients with moderate-to-severe Crohn’s disease reported 12-month cumulative clinical remission and mucosal healing rates of 35% and 63%, respectively; 26% of patients achieved both clinical remission and mucosal healing.9 Prior anti-TNF therapy, severe disease, current smoker status and perianal disease were predictors of a poorer response. Vedolizumab was generally well tolerated.9

Anti-interleukin therapy: Ustekinumab

Ustekinumab blocks the biological activity of IL-12 and IL-23 via their common p40 subunit.3 The phase II CERTIFI study found that it was a safe and effective therapy for patients with moderate-to-severe Crohn’s disease refractory to anti-TNF agents.10 Patients who showed an initial response and underwent a second randomization to maintenance therapy had significantly increased rates of clinical remission (42% vs 27%) and response (69% vs 43%) versus placebo.10

Oral JAK inhibitors: Tofacitinib

Tofacitinib is a selective tyrosine kinase inhibitor to JAK1 and JAK3, which mediate signal transduction and, hence, lymphocyte activation, function and proliferation. It was first reported as effective for patients with ulcerative colitis who failed conventional therapy in the OCTAVE study, where it was administered at a high dose of 10 mg twice daily.11 It has a more modest effect in patients with Crohn’s disease, but is generally well tolerated by both groups of patients.

Oral SMAD7 antisense oligonucleotide: Mongersen

Mongersen inhibits Smad7, which blocks TGF-β intracellular signalling in Crohn’s disease and induces the production of inflammatory molecules. A double-blind, phase II trial reported that 65% of steroid-dependent or refractory patients with Crohn’s disease involving the terminal ileum or right sided colon who received mongersen 160 mg/day achieved clinical remission and 72% achieved a clinical response (Figure 2).12 It is also generally well tolerated.

Figure 1. Early aggressive biological therapy reduces the relapse rate of patients with Crohn’s disease versus conventional management.8

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The Chinese University of Hong Kong

Figure 2. Proportion of patients without relapse (%) vs. time after randomization (weeks).

Early combined immunosuppression
Conventional management
p=0.031
Figure 2. Mongersen improves clinical remission and response rates in Crohn’s disease.12

Primary endpoint

Secondary endpoint, Day 28 vs. Baseline

<table>
<thead>
<tr>
<th>Mongersen (mg/day)</th>
<th>Placebo</th>
<th>10</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placebo</td>
<td></td>
<td>10</td>
<td>20</td>
<td>40</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>Mongersen</td>
<td></td>
<td>12</td>
<td>55</td>
<td>60</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

* p<0.001  † p<0.04

**Conclusion**

Vedolizumab is better for ulcerative colitis than Crohn’s disease and is a suitable first-line biological therapy; superior responses are seen in patients without prior anti-TNF exposure. Ustekinumab is suited to patients with moderate-to-severe Crohn’s disease who are resistant to anti-TNF therapies, as is tofacitinib. Mongersen can be used for patients with steroid-dependent or refractory Crohn’s disease.

**Advances in endoscopic biliary intervention**

While standard endoscopic retrograde cholangiopancreatography (ERCP) and endoscopic ultrasound (EUS) allow us to cope with many common benign and malignant biliary pathologies, there are still situations in which standard endoscopic techniques may fail. Examples include patients with complicated large bile duct stones that are not amenable to basket mechanical lithotripsy, those with indeterminate biliary strictures, or failed ERCP due to altered anatomy or duodenal obstruction by a tumour. A number of new endoscopic techniques may be useful in these situations.

**Difficult bile duct access:**

**Pre-cut versus EUS-Rendezvous-ERCP**

Precut sphincterotomy (eg, precut papillotomy or fistulotomy) is generally performed using a needle knife. Although precut is usually thought of as a rescue technique, researchers are now exploring the concept of ‘early’ precut in patients with difficult bile duct cannulation. In a series of 346 patients, 58 of 70 (82.8%) who required precut achieved cannulation with the early precut technique. Overall cannulation success in the 346 patients improved to 96.5% after the addition of precut. Complications of precut in this cohort included pancreatitis in 1.4% and bleeding in 8.6%. A meta-analysis of early precut versus other techniques found no difference in the overall complication rate.

**References**

However, there are situations where precut may not be possible, such as a case of ampullary cancer where the orifice cannot be reliably identified. A new technique for accessing the bile duct, EUS-Rendezvous-ERCP, may be useful in such cases as it relies upon EUS-guided bile duct access. A study in 202 patients comparing precut (n=144) and EUS-Rendezvous-ERCP (n=58) reported comparable success rates for bile duct cannulation at the first attempt (90.3% vs 98.3%, respectively; p=0.38), as well as overall (95.8% vs 98.3%; p=0.35).1

**Single-operator SpyGlass cholangioscopy**
Cholangioscopy should be considered for patients with complicated bile duct stones and indeterminate biliary strictures. Traditional cholangioscopy requires two operators (mother-baby system) and, although it provides good image quality, the procedure is cumbersome and the scope quite fragile.4 Recent single-operator SpyGlass systems are promising advances. The first-generation SpyGlass systems used an optical fibre probe with only fair image quality.5 Second-generation digital SpyGlass probes are much improved in terms of image quality. Comparison of case series data indicates that second-generation probes have improved sensitivity rates when diagnosing malignancy. First-generation probe sensitivities in diagnosing a malignant biliary stricture were 78% for visual impression and 49% for directed biopsy, but the sensitivities are up to 90% and 85%, respectively, for second-generation probes. Complete stone clearance rates have also improved from 71.0% to 86.1% and serious complication rates have been reduced from 7.5% to 2.9%.5,6

**“Second-generation, digital, single-operator SpyGlass cholangioscopes improve visualization and thus sensitivity for detecting malignancy and avoiding complications”**

**Endoscopic locoregional therapies for inoperable cholangiocarcinoma**
Two new endoscopic techniques for locoregional therapy — endoscopic radiofrequency ablation (RFA) and photodynamic therapy (PDT) — may also improve management of patients who require palliative stenting for inoperable cholangiocarcinoma. The RFA technique improved survival when used in combination with stenting for malignant biliary obstruction.7 PDT used with stenting has also been shown to improve survival compared with stenting alone in patients with unresectable cholangiocarcinoma (mean survival 16.2 vs 7.4 months, respectively; p<0.004).8 A retrospective study of 16 RFA and 32 PDT patients revealed that the techniques have comparable efficacy in terms of survival (Figure),9 but PDT requires extra care as the patient has to stay in a dark room for a period of time after the procedure to avoid skin damage due to light activation of the photosensitizer.

**Figure.** Endoscopic radiofrequency ablation and photodynamic therapy have comparable beneficial effects on patient survival

![Kaplan-Meier survival probability estimate](image)

**References**
The human microbiome is made up of more than 100 trillion bacteria, fungi, protozoa and viruses that live on and inside the body, with the majority located in the gastrointestinal tract (especially the large intestine or colon). These microorganisms are essential to human health and aid in biological processes such as extracting energy from food, producing essential vitamins, regulating the immune system, glucose levels and metabolism, and protecting against disease-causing microbes. Faecal microbial transplant (FMT) is based on the hypothesis that diseases caused by alterations in the gastrointestinal microbiome can be successfully treated by replacing the microbiota.

**FMT proven successful against recurrent C. difficile infection**

FMT was first reported to be effective in the treatment of recurrent *Clostridium difficile* infection in a landmark paper showing that duodenal infusion of donor faeces was more effective than vancomycin. Patients were randomized to receive vancomycin followed by bowel lavage and subsequent infusion of donor faeces, a standard vancomycin regimen alone, or a standard vancomycin regimen with bowel lavage. The study was stopped after an interim analysis showed that 81% of the infusion recipients had resolution of *C. difficile*-associated diarrhoea after the first infusion versus 31% and 23% of patients who received vancomycin alone or vancomycin with bowel lavage, respectively.

Many international guidelines now recommend considering FMT in certain contexts. The American Society for Gastrointestinal Endoscopy (ASGE) 2013 guidelines recommend FMT after a third recurrence of *C. difficile* infection after a pulsed vancomycin regimen. The UK’s National Institute for Health and Care Excellence (NICE) 2014 recommendations state that FMT should be considered for patients with *C. difficile* infection who have failed to respond to antibiotics and other treatments, while the United European Gastroenterology (UEG) 2014 guidelines officially recommend FMT as effective treatment of *C. difficile* infection.

**Sample preparation**

Once donors have been approved, stool samples are collected and prepared for use. At present, most FMT is performed using fresh stool samples, but there are some problems with this approach, such as the time window during which infections may be dormant and asymptomatic and thus increase the risk of potential infection. Frozen samples may be more readily available and can avoid the risk associated with the window period. Indeed, a recent randomized controlled trial that compared the efficacy of fresh and frozen FMT samples did not report any differences in the resolution of *C. difficile*-induced diarrhoea.

**Novel approaches**

A number of researchers are currently trying to extract components from stool to avoid the use of whole stool samples. For example, a non-toxigenic M3 strain of *C. difficile* has recently been shown to reduce *C. difficile* infection rates, but its efficacy appears to be lower than that of whole stool. Other emerging stool-derived products include blended natural stool, stool microbiota suspensions, highly purified stool cryosuspensions and encapsulated and frozen purified stool. Synthetic FMT products are also being investigated, including a 10-strain liquid culture, a cultured 33-strain liquid product and recurrently cultured whole stool microbiota.

FMT may also be beneficial for indications other than *C. difficile* infection, and researchers are currently investigating its potential in conditions such as ulcerative colitis, IBS, hepatic encephalopathy and even obesity.

**References**


**“FMT should be adopted as the standard of care for recurring C. difficile infection in Hong Kong”**

**Donor screening is important**

However, donor screening is very important to avoid possible side effects. Thorough history taking is imperative, noting travel, antibiotic, recreational and psychoactive drug use, presence of atopic or autoimmune disease, malignancy, gastrointestinal surgery, and diseases such as irritable bowel syndrome (IBS), inflammatory bowel disease and chronic diarrhoea. A physical examination is required along with blood and stool screening to rule out infections with hepatitis B or C, HIV, syphilis, *C. difficile* and multidrug-resistant organisms. Donors must have a body mass index of 18–23, as transplants from obese donors have been shown to lead to rapid increases in bodyweight in patients who were initially of normal weight.
Transanal-Transabdominal Total Mesorectal Excision (TaTME) is becoming increasingly important in the treatment of rectal cancer. Despite its ability to overcome challenges associated with traditional laparoscopy, there is a lack of randomized controlled trials to confirm the efficacy of TaTME in current practice. However, recent reviews have suggested that TaTME is both a safe and feasible option for rectal cancer with an immediate morbidity similar to laparoscopic TME and promising oncologic safety. Results to date: Barcelona experience with TaTME

A total of 252 patients have undergone TaTME at the Hospital Clinic in Barcelona, Spain. The patients were mostly (60.3%) male with a mean body mass index (BMI) of 25.35 kg/m² and 51.4% had previously received neoadjuvant treatment. The mean distance from the anal verge was 7.8 cm, which is likely due to the clinic treating low, middle and high rectal cancer. Surgical outcomes are promising (Table 1). The mean operative time was 147.58 ± 53.64 minutes (range 55–320 minutes), which is shorter than that required for typical laparoscopic TME. The mean height of the anastomosis was 4.78 cm, although data on anastomoses are limited as hand-sewn anastomoses were preferred when the technique was first performed, whereas mechanical anastomoses (end-to-side where possible) are now recommended. Splenic flexure mobilization occurred in 33.6% of patients. This is quite a low number as the team thinks it is only required in cases where there is tension or traction on the colon. The intraoperative morbidity rate was 10.2%.

Table 1. Real-world surgical outcomes from TaTME performed at Hospital Clinic, Barcelona

<table>
<thead>
<tr>
<th>SURGICAL OUTCOMES</th>
<th>INTRAOPERATIVE COMPLICATIONS</th>
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<tbody>
<tr>
<td>Operative time (min)</td>
<td>Small bowel injured</td>
</tr>
<tr>
<td>147.58 ±53.64 (55-320)</td>
<td>4</td>
</tr>
<tr>
<td>Anastomosis</td>
<td>Ileostomy redo</td>
</tr>
<tr>
<td>Mechanical/hand sewn</td>
<td>74.0% (n=185) / 24.4% (n=61)</td>
</tr>
<tr>
<td>T-T/T-L</td>
<td>53.5% (n=131) / 42.0% (n=103)</td>
</tr>
<tr>
<td>Mini J/J</td>
<td>2.0% (n=5) / 0.8% (n=2)</td>
</tr>
<tr>
<td>Intersphincteric partial/total</td>
<td>8.5% (n=20) / 10.2% (n=24)</td>
</tr>
<tr>
<td>Height anastomosis (cm)</td>
<td>4.72 ±2.74 (1-11)</td>
</tr>
<tr>
<td>Splenic flexure mobilization</td>
<td>33.6% (n=80)</td>
</tr>
<tr>
<td>Assisted incision</td>
<td>44.4% (n=108)</td>
</tr>
<tr>
<td>Diverting stoma</td>
<td>78.0% (n=195)</td>
</tr>
<tr>
<td>Ileostomy</td>
<td>73.6% (n=184)</td>
</tr>
<tr>
<td>Colostomy</td>
<td>1.6% (n=4)</td>
</tr>
<tr>
<td>Conversion</td>
<td>0.4% (n=1)</td>
</tr>
<tr>
<td>Intraoperative morbidity</td>
<td>10.2% (n=24)</td>
</tr>
<tr>
<td>J, jejunal; T-L, termino-lateral; T-T, termino-terminal</td>
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</table>
In terms of pathological outcomes, the mesorectum was complete in 97.2% of patients and the mean distal resection margin (DRM) was 2.61 cm. The mean circumferential resection margin (CRM) was 10 mm with a very low rate of positivity (5.2%). Tumour perforation was only noted in three (1.2%) patients. The mean number of lymph nodes harvested was 16.13, and 77.8% of patients had ≥12 nodes harvested.

Postoperative outcomes were also positive. The morbidity rate of 38.9% is similar to that associated with other procedures and the reoperation rate was 10%; 60.7% of patients experienced no complication according to the Clavien-Dindo classification. After a mean follow-up of 23.48 months, the mean overall survival time was 52.73 months and 79.6% of patients were alive and disease-free.

Results to date: International experience
A recent review of laparoendoscopic TaTME compared findings from 32 studies involving 720 patients. More men underwent the procedure than women (ratio 1.9:1) and the mean BMI ranged from 21.7–28 kg/m². The mean operative time was 130–365 min (range 90–495) and the intraoperative complication rate was quite low (1.5%). The mesorectum was intact or complete/nearly complete in 92% of patients and the mean number of lymph nodes harvested ranged from 11–32. The mean DRM was 0.9–3.6 cm and the CRM was positive in 2.5–15.4% of cases.¹

A study that compared gold standard laparoscopy with TaTME in 74 patients with rectal cancer found that no significant differences in oncological outcomes. The 2-year disease-free survival rate was 74.2% for traditional laparoscopy and 85.7% for TaTME (p=0.240). Corresponding values for distal recurrence were 22.6% and 11.4%, respectively (p=0.225). There was no significant difference in overall survival or postoperative complications. However, the mean operative time was shorter with TaTME vs laparoscopy (215 ±60 minutes vs 252±50 minutes) and early readmissions were also more frequent among patients in the laparoscopy versus TaTME group (22% vs. 6%; p=0.03).²

A recent meta-analysis of seven studies (573 patients, 270 of whom underwent TaTME) also compared laparoscopic TME with TaTME. It reported a shorter operative time with TaTME, as well as a lower conversion rate and fewer postoperative complications. The quality of the mesorectum and the rate of positive CRM were also found to be more favourable with TaTME.³

Conclusion
Short-term oncological outcomes for TaTME are comparable to laparoscopic TME and open surgery, but further randomized controlled trials are required.

References
36th Annual General Meeting cum Scientific Meeting of The Hong Kong Society of Gastroenterology

Date: 2 March 2017

Venue: Cordis, Hong Kong at Langham Place, Kowloon

Organizing Chairperson: Dr. Wai-Fan Luk

Sponsored by: AbbVie, AstraZeneca, Eisai, Gilead, A. Menarini, Novartis, Otsuka & Takeda

The annual scientific meeting was successful and attended by 166 healthcare professionals. The honorary fellowship of our Society was bestowed upon distinguished guest, Prof. Kwong-Ming Fock, Senior Consultant, Gastroenterology and Hepatology, Division of Gastroenterology, Department of Medicine, Changi General Hospital, Singapore. He is among the 20 honorary fellows of our Society who are renowned scholars in the specialty.

Prof. Fock delivered an enlightening lecture sharing his valuable experience on the topic “From H. pylori to Colorectal Disorders: a Personal Perspective” and Dr. Moe Kyaw presented a case on Endoscopy in IBD. The panel discussion led by Prof. Wai-Keung Leung, Dr. Kin-Bon Lai and Dr. Wai-Man Yip was actively participated.

The annual general meeting then followed was attended by 55 fellows and members during which the Society’s annual report and financial statements for the year of 2016 were presented. Seven fellows were elected to the Council for the term of 2017-2019.

A Certificate of Appreciation was presented to each of the eight sponsors in appreciation of their support and contributions towards the Meeting and they were AbbVie, AstraZeneca, Eisai, Gilead, A. Menarini, Novartis, Otsuka and Takeda.

Most participants stayed for the dinner and continued exchanging their views.

More photographs are available online http://www.hksge.org/photogallery.htm
The 19th Joint Annual Scientific Meeting (JASM) will be incorporated into Asian Pacific Digestive Week (APDW) 2017. Healthcare professionals are welcome to attend. A complimentary day-pass will be issued to all JASM participants to attend the meeting and join the Welcome Reception of APDW 2017 at 5:30p.m. at HKCEC.

Programme and registration details will be available soon. Please check at our website www.hksge.org for update information.