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VOL.18 NO.8 AUGUST 2013

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The Cover Shot



The Waterfall

This photo of the Jiuzhaigou waterfall was taken in October 2012. When I arrived at the scene, it was already evening. The last ray was shining in the last bit of the waterfall. I deliberately chose a position to shoot with the backlight on the fall against a dark background. The lighting led the water to sparkle. A diagonal composition was taken.

The leaves in the lower part of the picture acted as the foreground and were highlighted. This together with the slender tree in the right lower corner helped to stabilise the image. The grass in the upper left corner at the top of the fall echoed with the tree at the bottom that served to complete the composition. To avoid water spraying onto the camera lens and flaring artifacts from the direct light, the photo had to be taken at a distance using a telephoto lens. This also avoided the crowds.



Dr. Amy LM PANG MBBS(HK),FRCR, FHKCR,FHKAM(Radiology) Specialist in Radiology

Editorial

Published by The Federation of Medical Societies of Hong Kong

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Editorial

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Editor



Prof. Michael KW LI, BBS

The first laparoscopic cholecystectomy was performed in 1990 in Hong Kong at PWH. Thereafter, minimally invasive surgery (MIS) has developed a significant impact on current surgical management.

Currently, the laparoscopic approach is considered to be the standard approach for cholecystectomy and patch repair of perforated peptic ulcers. Laparoscopic appendicectomy, laparoscopic hernioplasty and laparoscopic colectomy are also widely practised in different surgery centres in Hong Kong. Patients are now benefited from better postoperative outcome and faster recovery.

With the use of the da Vinci robotic system, surgery in a confined space (e.g. in the pelvis) or those procedures with great demands on suturing (e.g. anastomosis of the GI tract) can be performed better by means of robotic techniques.

In the current issue, we share MIS applications in various surgical subspecialties. Dr. Eric LAI shares with us the current status of minimally invasive liver surgery. Dr. YP TAI illustrates the current indications for video-assisted thoracoscopic surgery. Dr. Hester CHEUNG will discuss the usage of MIS in rectal cancer and obstructing colorectal cancer. Further highlights on natural orifice transluminal endoscopic surgery (NOTES), single-port device and robotic surgery for colorectal surgery are given as well. Dr. Frances CHEUNG describes the MIS and robotic surgery for benign and neoplastic conditions in the upper gastrointestinal tract. Dr. David TSUI gives highlights on the application of MIS in various endocrine conditions including adrenal, parathyroid and thyroid pathology.

I hope our readers will enjoy reading this issue and be brought up to date with current practice of MIS.





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Medical Bulletin

The Current Status of Minimally Invasive Liver Surgery

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This article has been selected by the Editorial Board of the Hong Kong Medical Diary for participants in the CME programme of the Medical Council of Hong Kong (MCHK) to complete the following self-assessment questions in order to be awarded 1 CME credit under the programme upon returning the completed answer sheet to the Federation Secretariat on or before 30 August 2013.

Introduction

The introduction of minimally invasive surgery (MIS) has revolutionised surgical practice in the past two decades. MIS has been shown to be safe and effective for surgical management of several gastrointestinal conditions. MIS benefits patients in terms of aesthetics and early recovery, and medical institutions in terms of the low cost associated with a short hospital stay. Traditionally, liver surgery is considered as one of the most complex surgeries among the abdominal procedures. These advanced MIS require liver surgeons to have experienced laparoscopic skills. Therefore, its MIS development is also lagging behind other gastrointestinal organs' MIS development. In the last decade, surgeon skill, technological advances, and patient awareness have contributed to a marked growth in the field of MIS in liver surgery worldwide. Since the first laparoscopic liver resection was reported in 1992, there has been an exponential increase in the number of reported laparoscopic liver resections, and the interest in robot-assisted laparoscopic liver resections is rising also recently.¹ This article aims at introducing the current status of MIS in liver surgery.

Conventional Laparoscopic Approach

The drives of development of laparoscopic liver resection are the potential MIS benefits to the patients. (Table 1) Various techniques and instruments have been developed to make this become feasible in the last 2 decades. Laparoscopic liver resection can either be total laparoscopic, hand-assisted approach or a laparoscopicassisted open "hybrid" approach, where the operation is started laparoscopically to mobilise the liver and dissection, followed by a small laparotomy wound for completion of the parenchymal transection. Techniques of hand-assisted laparoscopy or hybrid approach has been attempted to bridge the gap between open and conventional total laparoscopic approach. Obviously, total laparoscopic procedure is superior to hand-assisted approach and hybrid approach in terms of wound pain, and cosmetic outcome.

In order to standardise and summarise the current position on laparoscopic liver surgery, an international consensus conference was convened to evaluate the status of laparoscopic liver surgery in Louisville, Kentucky, in November 2008, incorporating the opinions of the

world's experts in laparoscopic and open liver surgery.² The organising committee selected 45 recognised experts from around the world with the most extensive published experience in both laparoscopic and open liver surgery. They concluded that laparoscopic liver surgery is a safe and effective approach to the management of surgical liver disease in the hands of trained surgeons with experience in hepatobiliary and laparoscopic surgery. The best indications for laparoscopic liver resection are in patients with solitary lesions, 5 cm or less, located in peripheral liver segments (segments 2-6). The laparoscopic approach to left lateral sectionectomy should be considered as a standard practice. Although most types of liver resections can be performed laparoscopically, including major liver resections, these should be reserved to experienced surgeons already skilled at more complex laparoscopic resections. Up till the year 2009, almost 3000 laparoscopic liver resections have been reported.3 Fifty percent were performed for malignant pathologies. Conversion to open laparotomy and to hand-assisted approach happened in 4.1% and 0.7% of cases, respectively. The overall mortality rate was 0.3%, and the morbidity rate was 10.5%, with 0% intraoperative mortality reported.

Table 1: Potential	advantages of minimally invasive liver surgery
Operative	 Improved visualisation Visual magnification Reduced blood loss Decreased collateral venous drainage, especially in patients with liver cirrhosis/portal hypertension Less adhesion formation
Post-operative recovery	 Improved perioperative pulmonary recovery Fewer wound infection Reduced perioperative immune suppression Shorter postoperative recovery time Better cosmesis

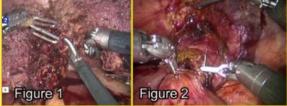
Multiple series have been published on laparoscopic liver resections; however, no prospective, randomised controlled trials have been established to compare laparoscopic with open liver resections. Large cohort series, nonrandomised comparative studies, metaanalyses, and reviews have thus far attested to the feasibility and safety of laparoscopic liver resections for benign and malignant pathologies.⁴⁻¹⁰ Over the past decade, this MIS approach has been used increasingly to manage various liver pathologies, showing that this technique in liver surgery, despite the technical challenges, reduces operative blood loss and results in less postoperative analgesic drugs consumption, and shorter hospital stay, with the morbidity, mortality, oncologic clearance and survival rate similar to that of open surgery. Although these advantages may be partially explained by a strict patient selection, and surgeries performed by highly experienced laparoscopic surgeons, the place of laparoscopy in liver surgery is increasing indeed.

The majority of reported laparoscopic liver resections are non-anatomic resections or segmentectomies. Recently, some encouraging data about laparoscopic major liver resections come from large published series, but its reproducibility and routine feasibility of this technique remain questionable.¹¹ Laparoscopic major liver resection is still limited to a few expert centres, and only a small percentage of patients are considered by the majority of authors to be suitable for the laparoscopic approach.

Robotic Approach

The recent introduction of robotic surgery has revolutionised the practice of MIS. The recently developed surgical robotic systems can overcome many of the limitations and drawbacks of conventional laparoscopic approach. Well-known advantages of the robotic surgery have allowed precise operating techniques in a variety of surgical procedures. (Table 2) These special features of precision, steadiness, and dexterity allow the surgeons to perform delicate porta hepatis dissection, hepato-caval dissection and biliary-enteric anastomosis.^{12,13} This may fasten and broaden the scope of MIS development of liver surgery. Hence, the technique can be used for a multitude of conditions including liver surgery that involve biliary reconstruction, liver resection for tumour in difficult positions, and major liver resection. (Figure 1 & 2)

Table 2. Advant	ages and disadvantages of robotic surgery
Advantages	 3-dimensional magnified view Seven degrees of freedom with improved dexterity Elimination of fulcrum effect Elimination of physiologic tremors Ability to scale motions Facilitate anastomoses Ergonomic position Tele-surgery transmission
Disadvantages	 Complete absence of tactile feedback Expensive High start-up costs Require extra staff to operate New technology, with unproven benefit
march Mark	



The indications and surgical principle for robotic liver resection are similar to those for conventional laparoscopic liver resection as long as patient safety and oncologic results are not compromised. Robotic approach of liver resection emphasises teamwork between two experienced laparoscopic and liver surgeons. The robotic surgeon occupies the console and the bedside surgeon sits at the side of the patient to maintain the tissue counter traction, exchange instruments, pass needles, and **Medical Bulletin**



manage the suction-irrigator, clip appliers, and various surgical energy devices as needed. Some people criticised the longer operating time of robotic surgery. From our experiences, it will be gradually improved after passing the learning curve. Between May 2009 to April 2013, 115 patients underwent robotic liver resections in our hepatobiliary surgical unit of Pamela Youde Nethersole Eastern Hospital. 28.2% of resections were major hepatectomies. The mean operating time, blood loss, morbidity rate, mortality rate were 213.5 minutes, 266.7 ml, 12.2% and 0%, respectively. The open conversion and hand port conversion rate was 0.9 and 1.7%, respectively. The mean hospital stay was 6 days. Although little data regarding robotic approach of liver resection have been reported in the literature, it appears to be similar to conventional laparoscopic liver resections in terms of operative time, blood loss, morbidity, mortality rate and hospital stay.14-16 The other usual criticism is its costs. The costs of robotic approach of liver resection are more expensive than conventional laparoscopic liver resection due to the high costs of start-up, maintenance, and need for dedicated instruments of robotic surgery. This is a great hurdle for the development of robotic surgery for liver pathologies. To reduce its costs, it may be useful to establish highvolume centres, create specialised robotic surgery units, train dedicated theatre staff, reduce the number of disposable instruments per operation, reduce setup time, and shorten the learning curve with the help of expert surgeons at the beginning of the training period. When addressing cost savings of robotic surgery, it is also necessary to increase multidisciplinary use and overall annual use. In addition, robotic liver resection may become more popular if future designed robotic surgical systems can be developed that are smaller, less expensive, integration of haptic feedback and incorporate various hepatic parenchymal transection tools.

Conclusion

MIS in liver surgery is entering a new era in the surgical management of liver diseases. Laparoscopic liver surgery offers the benefits of MIS, such as better cosmesis, less blood loss, reduced duration of hospitalisation, and less postoperative pain in selected patients. The technique has been shown to be as safe and feasible in experienced hands. Although little data regarding robotic liver surgery have been reported, it appears to be similar to conventional laparoscopic approach in terms of short term outcomes. MIS in liver surgery should be initiated only in centres in which the combined expertise in laparoscopic and hepatic surgery exists.

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MCHK CME Programme Self-assessment Questions

Please read the article entitled "The Current Status of Minimally Invasive Liver Surgery" by Dr. Eric CH LAI, Prof. Michael KW LI, BBS and Dr. Chung-ngai TANG and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 30 August 2013. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

Questions 1-10: Please answer T (true) or F (false)

- 1. The best indication for laparoscopic liver resection is in patients with solitary lesions (≤5cm) located in peripheral liver segments.
- 2. A huge liver tumour with 20 cm in size is an acceptable indication for laparoscopic liver resection.
- 3. Malignant pathologies are contraindications for any laparoscopic liver resection.
- 4. Studies showed that in selected patients, laparoscopic liver resection can reduce operative blood loss and results in less postoperative analgesic drug consumption, and shorter hospital stay.
- 5. Laparoscopic left lateral sectionectomy should be considered as a standard practice.
- 6. Laparoscopic major hepatectomy is a popularised technique of liver resection.
- 7. The costs of robotic approach of liver resection is its main disadvantage.
- 8. Robotic surgery emphasises teamwork between two experienced surgeons.
- 9. The robotic system has the special features of precision, steadiness, and dexterity.
- 10. The obotic system retains tactile feedback during operation.

ANSWER SHEET FOR AUGUST 2013

Please return the completed answer sheet to the Federation Secretariat on or before 30 August 2013 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions.

The Current Status of Minimally Invasive Liver Surgery

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Video-assisted Thoracoscopic Surgery Today

Dr. Yuk-ping TAI

MBBS (Lond), FRCS(Ed), FCSHK, FHKAM Consultant surgeon (part time), Pamela Youde Nethersole Eastern Hospital Private Practice



Dr. Yuk-ping TAI

Thoracotomy is one of the most painful incisions in surgical procedures, and its associated complications such as pneumonia are well known. Video-assisted thoracoscopic surgery (VATS) offers the benefits of a minimally invasive approach with reduced pain and complications.^{1,2}

In fact thoracoscopy is not new. Back in 1910, Professor HC Jacobeus had already performed thoracoscopies for his patients, mainly for diagnostic purposes. There had been little progress over nearly one century. It was not until the early 1990s when there was a rapid development in laparoscopic surgery with improved optics and instruments, that VATS took off as well with great enthusiasm. Nowadays, many thoracic procedures can be performed using the VATS approach.

Hyperhidrosis

Sweaty palms could be quite distressing to some patients. Unfortunately in the past, the traditional open approach, either supraclavicular or transaxillary, was associated with significant risks such as phrenic nerve injury and lung injury in addition to a large wound. Not surprisingly, physicians were reluctant to refer patients for sympathectomy in the past. With VATS, the procedure can be performed via 2 to 3mm incisions and the patients are often discharged on the same day. The result is extremely good with nearly 100% success rate and minimal risks.^{3,4,5} VAT sympathectomy is now the choice of permanent treatment for patients with disturbing hyperhidrosis.

Pneumothorax and pleural effusion

Another thoracic condition that is benefited greatly from VATS is spontaneous pneumothorax. A very clear thoracoscopic view enables identification of bullae which are often the cause of the air leak. The bullae can be easily excised with an endo-stapler or ligated with sutures. A thorough mechanical pleural abrasion ensures sound pleurodesis. The patient can be discharged three to five days after operation. Recurrent rate is around 5% .^{6,7} For those elderly patients with secondary spontaneous pneumothorax, VAT pleurodesis can be performed under local anaesthesia with talc powder. The result is equally good.⁸ VAT talc pleurodesis is also indicated for those patients suffering from malignant pleural effusion and for recurrent pleural effusion from other causes such as peritoneal dialysis.⁹

Lung cancers

For lung cancers, VAT lobectomy eliminates the

complications associated with a thoracotomy. Post operative pain is minimal and the patient can be discharged 5 to 7 days after the operation. Studies have shown that for early stage cancers VATS offers similar oncological clearance as traditional open lobectomy with comparable survival rates.¹

Indeterminate lung nodules

With increased health awareness and more exhaustive pre-operative investigations such as CT, MRI and PET scan, more abnormalities are being picked up in asymptomatic patients. In most cases, the physician is obliged to do further investigations to find out the nature of these lesions. CT guided fine needle aspiration (FNA) cytology offers the best answer if the lesion is big enough for aspiration and locates in a position amenable to percutanous biopsy. However, FNA might not be successful or conclusive. VAT offers a clear examination of the pleural cavity and the lung lobes, and excision of the nodule provides a specimen for a definitive histological diagnosis.¹⁰

Other thoracic conditions

Other thoracic procedures that are amenable to VATS include thymectomy for myasthenia gravis and thymoma, excision or biopsy of mediastinal tumours, decortication for early empyema thoracis and diagnosis for pleural effusion of unknown causes. The advantages of minimally invasive surgery in terms of less post-operative pain and faster recovery are well seen in VATS for these conditions.^{11,12}

Conclusion

VATS has much developed and matured over the last 20 years, and many thoracic operations can now be safely performed with improved clinical outcomes.



Figure 1. Theatre setup for a VAT operation.



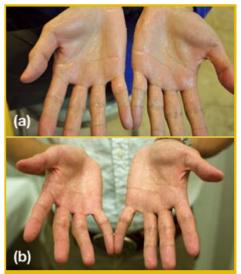


Figure 2. (a) wet palms (b) same patient's palms two weeks after VAT sympathectomy. Note completely dry hands after surgery.



Figure 3. Lung bulla in a patient with spontaneous pneumothorax



Figure 4. Thoracoscopy in a patient with pleural effusion of unknown cause. VAT clearly shows pleural metastasis as cause for the effusion

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MIS Upper GI

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Upper Gastrointestinal surgery has undergone revolutionary changes in the past few decades. Changing epidemiology, medical regimens to treat peptic ulcer disease, development of laparoscopic, endoscopic and robotic instruments and skills made minimal access surgery an important role in managing many benign and malignant diseases of the upper gastrointestinal tract.

MIS in peptic ulcer disease

Identification and eradication of Helicobacter pylori and the high efficacy of proton pump inhibitors have resulted in successful medical therapy of peptic ulcer disease in the vast majority of patients. Definitive ulcer surgery is rarely required now. Surgery treatment is reserved for complications such as massive uncontrolled bleeding, perforation or obstruction. Though open surgery is still the mainstay of treatment for massive bleeding uncontrolled by endoscopy, the majority of peptic ulcer perforations are amenable for laparoscopic repair. Patients with perforated peptic ulcers usually present with acute abdominal pain and peritoneal signs. Most of them suffer from small perforations (less than 1cm) and present early. Laparoscopic peritoneal irrigation and omental suture repair of the perforation is technically feasible in these patients. One randomised controlled trial (n=130) showed laparoscopic repair of perforated peptic ulcers was associated with a shorter operating time, less postoperative pain, reduced pulmonary complications , shorter postoperative hospital stay and earlier return to normal daily activities compared with conventional open surgery¹. The Cochrane Systematic Review showed laparoscopic surgeries offer similar clinical results as open ones² while another systematic review showed laparoscopic repairs benefit low risk patients³. Provided the necessary expertise is available, laparoscopic repair is considered for most patients with perforated peptic ulcers.

Gastric outlet obstruction from peptic ulcers may be due to oedema from the ulcer or scar from refractory peptic ulcer disease. The former usually resolves with medications including proton pump inhibitors and Helicobacter pylori eradication regimen. The latter often requires surgery or endoscopic dilatation. The result of endoscopic balloon dilatation is variable depending on the size of the balloon used, the Helicobacter status, and not without risk of perforation⁴. In patients with general condition feasible for general anaesthesia, minimally invasive laparoscopic techniques (truncal vagotomy and gastrojejunostomy) have been developed to be safe and effective procedures with reduced postoperative recovery time compared with open surgery⁵.

MIS in neoplastic lesions

With advances in optics, energy source and stapling devices, safe resection of benign lesions in oesophagus and stomach with minimally invasive surgery have been proved in various series. Thoracoscopic enucleaton of oesophageal leiomyoma, and wedge resection of gastric stromal tumour (Figure 1) have been proved to be both safe and feasible with reduced access trauma⁶.



ntragastric resection of gastrointestinal stromal tumor

Surgeries for cancers of the oesophagus and stomach entail en-bloc resections with lymphadenectomy. Screening diagnosed cancer in early stage. Surgical pathological correlations showed that early cancers of oesophagus and stomach rarely metastasise to regional lymph nodes when certain criteria are satisfied. Therefore, it is oncologically safe to resect these early tumours endoscopically by EMR (endoscopic mucosal resection) or ESD (endoscopic submucosal dissection) techniques (Table 1 and Table 2). Follow up studies have confirmed the long term results of endoscopic resection of early cancers. Local recurrence from a large retrospective study with 472 patients was 1% and overall 5 years survival was 83% (none due to gastric cancer)⁷. For patients not fulfilling the criteria for endoscopic resection, surgery is the main therapeutic modality. Less extensive lymphatic dissection is required in these early tumours. Meta-analysis have reported short term efficacy of decreased wound pain, length of hospital stay, blood loss and a trend towards reduced complications, while the recurrence and survival rates were similar to open gastrectomy⁸. The Japanese Laparoscopic Surgery Study

Group reported the oncologic outcomes of 1294 patients who had undergone laparoscopic gastrectomy for early gastric cancer, the 5-year disease-free survival rates were 99.8%, 98.7% and 85.7% for stage 1A, 1B and II disease respectively9. In Korea, multicentre data showed similar good results with disease recurrence of 1.6% for early gastric cancer and 13.4% for advanced gastric cancer in a 41-month follow up¹⁰. Currently, the Gastric Cancer Surgical Study Group of the Japan Clinical Oncology Group (JCOG 0912) and the KLASS group (KLASS 01) are conducting multi-institutional prospective randomised controlled phase III trials to compare laparoscopic gastrectomy with open gastrectomy. A separate phase III study for evaluating the feasibility of laparoscopic surgery in advanced gastric cancer is also underway in Korea (KLASS 02). Although there is still some controversies between the Western and Eastern studies on the efficacy for D2 lymph node dissection, it is the accepted standard procedure for advanced gastric cancer in Korea, Japan and many Eastern and Western centres. With advances in technique and experience of surgeons, laparoscopic-assisted gastrectomy has been applied for advanced gastric cancers. Small studies have reported comparable long term outcomes to open operation¹¹ while large scale multicentre randomised controlled trial is awaited.

Table 1. Indications and contraindications of endoscopic mucosal resection for early oesophageal neoplasia

Absolute indications HGIN (BE)

T1 m1-m3 No risk factors Lymphatic invasion (L1) Venous infiltration (V1) Poorly differentiated

Carcinoma (G3) Macroscopic elevated or flat

Intermediate indications Tumour size >20 mm Multifocal cancer T1 sm1 infiltration No risk factors Contraindications T1 sm2 infiltration or deeper T1 sm1 cancer with one risk factor

Ulcerative lesion Data from Pech O, May A, Rabenstein T, et al. Endoscopic resection of early oesophageal cancer. Gut 2007;56:1625–34.

Table 2. Indications for endoscopic resection for gastric neoplasm

Mucosal tumour (intestinal type), no ulcer, any size Mucosal tumour (intestinal type) ulcer <3cm Submucosal tumour (sm1) intestinal type, <3cm From Gotoda et al. Gastric Cancer 2002

Cancer of oesophagus is the ninth most common malignancy worldwide and sixth on cancer mortality. Superficial oesophageal neoplasms involving the mucosa or superficial submucosa has minimal risk of lymphatic spread and carry significantly better survivals. Endoscopic resection is indicated in those with M1, 2 and M3 and SM1 lesions without lymphovascular permeation. More advanced lesions require surgical resection with or without pre-operative chemoradiotherapy. Conventional open oesophagectomy has significant access trauma. MIS techniques have been employed in an attempt to

reduce access trauma (Figure 2). It also has benefits of magnification of view; potentially making more precise dissection feasible, though with lack of tactile sensation, dissection around bulky tumour close to vital organs such as the aorta and trachea can be more difficult and potentially more dangerous. The available literature on minimally invasive oesophagectomy (MIE), is heterogeneous, with different techniques including various combinations of thoracoscopy, laparoscopy, mediastinoscopy, and laparoscopic assisted (with minilaparotomy or hand-port devices) or thoracoscopicassisted methods (with minithoracotomy). Most of them are case series, several with comparison to historical data. The place of MIE is evolving. Pooled data have shown it to be similar to open surgery in perioperative mortality and morbidity. There may be associated less blood loss, less postoperative pain, and shorter length of stay in the intensive care unit and hospital while survivals were similar¹²⁻¹⁴. MIE is a complex operation with a definite learning curve which often requires centres with a high volume and experience in open surgery to investigate its potential benefits, where a randomised controlled trial is underway to explore its potential.



Figure 2. Thoracoscopic-assisted esophagectomy

MIS in functional and motility disorder

Anti-reflux surgery is an effective treatment for patients with GERD refractory to medical therapy, who have symptom recurrence when medicine is withdrawn¹⁵. Laparoscopic Nissen fundoplication is the most commonly performed procedure, it reduces the access morbidity of upper midline laparotomy incision16. Good to excellent long-term results are reported in 80-93% of patients^{17, 18}. Achalasia is a primary motor disorder of the oesophagus characterised by a lack of relaxation of the lower oesophageal sphincter and ineffective oesophageal body peristalsis. Treatment modalities aim to reduce the high muscle tone of the lower oesophageal sphincter. Since its introduction in 1991, laparoscopic cardiomyotomy has become the first-line therapy to treat achalasia recently. It offers the advantage of good exposure of the lower oesophagus and cardia, with good relief of dysphagia in 90% with low morbidity, compared favourably to endoscopic and other approaches¹⁹.

Robotic Surgery

Although laparoscopy has changed the surgical approach of many upper GI conditions, it has several limitations including a 2-dimentional vision, limited manipulation,

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ergonomic discomfort and increase of physiologic tremor. Robotic technology, with its computerised mechanical interface and seven degrees of freedom, has overcome many of these drawbacks. Several clinical trials have shown that the robotic system can enhance the skill of surgeons in performing difficult dissections and suturing techniques (Figure 3). In a prospective study comparing 37 patients who underwent laparoscopic and 24 patients with robotic Heller myotomy, 3 oesophageal perforations (8%) were recorded in the laparoscopic group while none in the robotic group²⁰. Robotics has also been reported in performing lymphatic dissection in gastric and oesophageal cancer surgery^{21, 22} and endoscopic submucosal dissection in early gastric cancers²³.



Figure 3. Robotic Heller cardiomyotomy

Conclusion

Development of endoscopic, laparoscopic and robotic instruments and techniques and integrating them has revolutionised traditional upper GI surgery. Their role is expected to be ever increasing with further technical development and evidence to support their benefits.

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MIS - Future is Here

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The development of minimally invasive surgery (MIS) in colorectal diseases began with the first report of laparoscopic assisted colectomy in 1991. There is now a wealth of evidence indicating the laparoscopic approach confers definite short term benefits to patients^{2,3}. Even for colorectal cancer, a common malignant condition worldwide, evidence in the literature demonstrates comparable oncological outcomes as the open approach². The following highlights the latest development in MIS for colorectal diseases.

MIS for rectal cancer

The development of MIS for rectal cancer lagged behind that of colon cancer before the turn of the century. As dissection deep down in the pelvis is technically demanding, early reports on laparoscopic rectal cancer surgery were dominated by high anterior resection (i.e. resection of tumours around the rectosigmoid junction) and sphincter-ablating resection (i.e. abdomino-perineal resection)⁴⁻⁶; in the latter case the lateral or circumferential margin is usually dictated by the perineal surgeon rather than the laparoscopic surgeon. Progress in technology and skills as well as accumulation of experience and confidence, however, have finally led to the extension of MIS techniques to distal rectal cancers with sphincter preservation⁷. Although the number of randomised studies is still limited, the available evidence from large prospective series demonstrates its safety in experienced hands and an oncological clearance comparable to that of the open counterpart⁸⁻¹². In fact, in the last decade, MIS techniques have been gradually incorporated into the clinical pathway of rectal cancer management; not only laparoscopic distal rectal cancers with sphincter preservation could now be safely performed, but investigators have also shown that MIS in patients with prior neoadjuvant chemo-irradiation is safe and carries similar short term benefits as in patients without chemoirradiation¹³. Even for tumours within 5cm of the anal verge, successful sphincter-preserving excisions have been described using a combined laparoscopic and transanal technique¹⁴.

MIS in Obstructive Colorectal Tumours

Like other advanced laparoscopic procedures, laparoscopic colectomy was initially practised in elective cases. The presence of intestinal obstruction, a common acute surgical emergency, was generally considered as a contraindication for MIS owing to limited access as a result of distended bowel. With the advent of self-expanding metallic stent (SEMS)¹⁵, laparoscopic colectomy could be performed after endoluminal stenting. This 'endo-laparoscopic' approach allows patients to enjoy the full benefits of MIS, obviating the need of emergency laparotomy and thus stoma creation¹⁶. Moreover, the approach does not have any deleterious effect on long term oncological outcomes; the number of lymph nodes harvested is even better when compared with emergency surgery ¹⁷.

NOTES in Colorectal Surgery

Compared to open surgery, laparoscopic colectomy for colonic tumours has been proven to have definite short term benefits^{2,3}. However, specimen retrieval still necessitates a mini-laparotomy which sometimes can be the cause and evil of postoperative pain as well as wound infection, compromising the benefits of minimally invasive surgery. Natural Orifice Transluminal Endoscopic Surgery (NOTES), the next wave of development in minimally invasive surgery, can help to achieve "scarless" surgery and abolish wound related complications in total. There are already a few case reports on transrectal approaches for colon resection; however, the technique is demanding and still evolving, and hence not widely available¹⁸.

Natural Orifice Specimen Extraction (NOSE) is another stepping stone towards "incisionless" surgery to reduce pain and wound related complications¹⁹. For application of NOSE in colorectal surgery, there are two common routes: through the anorectum and via the vagina. The transvaginal route, although limited to female patients, is plausible for resection and reconstruction of all colorectal segments and may show potential benefit, particularly when associated with a gynaecological procedure²⁰. Specimen extraction via the anorectum is widely reported in a number of studies²¹.

Combining laparoscopic and NOSE - the 'hybrid' NOTES procedure, i.e. combining laparoscopic mobilisation, transection and anastomosis with transanal specimen retrieval, can overcome the technical hurdle in NOTES colectomy. This concept represents a major breakthrough in minimally invasive colorectal surgery^{19, 21}.

Single Port Device in Colorectal Surgery

The recent introduction of single port access device has a great impact on MIS and NOTES. Not only surgery can now be performed through a single port via the umbilicus, but specimens can also be extracted through the umbilicus, a natural orifice, producing



"scarless surgery". It was initially used for simple laparoscopic procedures such as appendectomy and cholecystectomy. Later on, the technique has been employed in laparoscopic colectomy. The technique can also be combined with the 'hybrid' NOTES procedure, in which the colon specimen was extracted through the rectum, obviating the need to extend the umbilical incision used for single port access surgery²².

Robotic-assisted Colorectal Surgery

Robotic technology has been developed to obviate some of the limitations of conventional laparoscopic surgery; it provides a stable camera platform, enhanced dexterity, 3D imaging, more intuitive instrument manipulation, tremor elimination, and excellent ergonomics. However, little is known about the outcomes associated with robotic-assisted colectomy or how these outcomes compare with those achieved by the laparoscopic approach. Most reports evaluating robotic-assisted outcomes in colectomy have been feasibility studies²³. Robotic proctectomy, on the other hand, has been studied more intensively, with early data suggesting that robotic surgery seems to enhance the pelvic dissection with a lower risk of circumferential resection margin (CRM) positivity²⁴⁻²⁶ as well as significantly lower conversion rate when compared with laparoscopic approach in one recent meta-analysis²⁷. Additionally, better recovery of urogenital function when compared with a pure laparoscopic approach in TME has been shown in one recent comparative study28.

For all these reasons, the concept of robotic colorectal surgery appears appealing and may represent the next leap in minimally invasive surgery. However, firm evidence to support widespread implementation is still awaiting, particularly in the light of cost concern. Thus, large scale studies with longer follow up are desperately warranted to assess not only the feasibility but also the surgical outcomes of the robotic system in order to justify the widespread use of surgical robot.

Conclusion

Minimally invasive colorectal surgery has gone a long way since 1991. As we unfold the history, laparoscopic colectomy, from what initially was a highly specialised operation performed only by a small group of privileged surgeons in research or university centres, has evolved to become now a more or less standard procedure in many centres throughout the world. The development was further catalysed by progress in technology, which has brought in new elements and concepts of MIS besides laparoscopy, as well as revolutionised significantly the management of certain colorectal conditions. The indication and applicability of MIS continue to broaden.

Minimally invasive colorectal surgery will continue to flourish in the coming decades. This is reflected by the establishment of various endo-laparoscopic OR²⁹, robotic surgery centres and training centres on laparoscopic surgery and NOTES. We believe the next generation of colorectal surgeons will be entering a new era – the era of endo-laparoscopic and robotic-assisted laparoscopic surgery. And this will be soon approaching.

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EVIS EXERA III

OLYMPUS

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MIS Applications in Endocrine Pathology

Dr. David KK TSUI

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Introduction

With the development of new technology over the past decade, minimally invasive surgery (MIS) is applied in various surgical conditions including hepatobiliary, colorectal and upper gastrointestinal pathologies. In the field of endocrine-related pathology, we also find an important influence by this new technology.

Adrenal Surgery

Since the first successful of laparoscopic adrenalectomy by Michel Gagner in 1992¹, it became the standard approach to small size adrenal lesions. The most commonly performed techniques are lateral transperitoneal^{2,3} and the posterior retroperitoneal approach^{4,5}, with the patient in the lateral decubitus position and anterior transperitoneal³ technique, with the patient in the supine position. Laparoscopic adrenalectomy is associated with less postoperative discomfort, shorter hospital stay, less morbidity, less postoperative complications and earlier return to normal activity than open approaches⁶⁻⁸. Meta-analysis of trials of laparoscopic transperitoneal and retroperitoneal adrenalectomy did not show any difference in clinical outcome⁹.

With the use of the da Vinci robotic surgery system (Intuitive Surgical, Sunnyvale, California), it facilitates the surgeons to work on a magnified view. The use of robotic instruments provides seven degrees of freedom, the robotic camera provides a three-dimensional view with good perception of depth. Several large series of robotic adrenalectomy reported the feasibility of resection of functional and nonfunctional adrenal tumours and metastases with a size limit of 10-11cm^{10,11}. Robotic retroperitoneal adrenalectomy is an ideal approach for cortical-sparing adrenalectomy in phaeochromocytoma patients for reoperation in a single adrenal gland¹². The learning curve of robotic adrenalectomy is similar to laparoscopic adrenalectomy with two exceptions: longer operating time and higher causes.



igure 1. Robotic adrenalectomy



Dr. David KK TSU



Figure 2. Right adrenal specimen from a patient with whaeochromocytoma who had undergone robotic adrenalectomy

Parathyroid Surgery

Parathyroidectomy is the curative treatment for primary hyperparathyroidism. Traditionally, bilateral neck exploration with resection of the enlarged parathyroid glands is the 'gold standard' procedure and is associated with 95 per cent cure rate in experienced hands¹³. With the improvement on preoperative localisation of the gland by 99mTc-labelled setamibi scan as well as high resolution ultrasonography, unilateral exploration has been advocated. This can be performed by conventional minimally invasive parathyoridectomy with a neck incision around 2.5cm. The use of minimally invasive video-assisted approach in parathyroidectomy (MIVAP) was reported by Gagner in 1996¹⁴. This is a revolutionised approach for the subsequent development of endoscopic neck surgery. Thereafter, MIVAP was performed under local or regional anaesthesia by Miccoli¹⁵. The advantages of MIVAP including less pain and good cosmetic result are shown in randomised studies¹⁶.



Figure 3: One week postoperative photo for a patient who had undergone conventional minimally invasive parathyroidectomy

Medical Bulletin



Thyroid Surgery

After the first report of MIVAP in 1996, Huscher et al reported video-assisted thyroidectomy in 1997¹⁷. Miccoli from Italy reported the use of small cervical wound minimally invasive video-assisted thyroidectomy (MIVAT) ¹⁸ in 2000. It has shown to achieve similar completeness of resection in the treatment of low and intermediate risk papillary thyroid cancer (PTC) with concomitant central neck dissection¹⁹.

With the pursuit of a more remote wound access to the neck, surgeons from the South East Asian countries describe several extracervical approaches for endoscopic thyroidectomy. These approaches involve incisions over the chest, breast, and/or axilla to hide the scars under the clothing. Ikeda et al ²⁰ first described these ports in the axilla with low pressure gas insufflation for maintaining the operating space. Kang et al reported the use of skinlifting external retractor to axilla with a chest port for medial retraction of thyroid gland²¹. This approach is known as the gasless transaxillary approach. It provides an excellent view of the recurrent laryngeal nerve and parathyroid glands but the exposure to the contralateral side is more difficult. The learning curve is steep because surgeons are not used to approach the thyroid gland via this access. To further increase the degree of angulations, a combined axillo-breast approach was developed by two circumareolar trocars in the breast and a single trocar in the ipsilateral axilla. This approach was later modified by the addition of another axilla port to allow better exposure of both sides. This approach is known as the bilateral axillo-breast approach (BABA)²². It has the benefit of similar exposure as in open surgery and easy access of thyroid glands bilaterally. The surgical view is similar to conventional open thyroidectomy.

With the application of the da Vinci robotic system (Intuitive Surgical, Sunnyvale, California), surgeons are allowed to operate in a three-dimensional view with seven degrees of freedom and 90 degree articulation. There are large series of robotic thyroidectomy using the transaxillary approach as well as the BABA technique. Robotic surgery is also indicated for selected malignant conditions. Kang et al ²³ reported their experience of 200 cases of low-risk PTC robotic-assisted thyroidectomy using the gasless transaxillary approach with excellent short-term outcome. Central compartment neck dissection can be performed via this access. A multicentre study also confirmed the successful treatment of 1043 consecutive patients with low-risk PTC underwent gasless transaxillary robotic thyroidectomy24. Lee et al also reported their success in robotic BABA thyroidectomy in the treatment of low risk PTC²⁵.



Figure 4: Thyroid specimen obtained after robotic BABA total thyroidectomy

Comparison between robotic thyroidectomy and conventional open surgery was conducted in several studies. Robotic surgery was equal to surgical completeness in the treatment of differentiated PTC by the propensity score matching²⁶. Central neck dissection can be performed in robotic thyroidectomy. The cosmetic satisfaction and functional outcome were satisfactory in the robotic thyroidectomy group. The outcome is excellent when this procedure is performed in an experienced centre. A meta-analysis based on several non-randomised control trials published in 2012 showed that robotic thyroidectomy has no clinical benefit over endoscopic thyroidectomy and it is associated with an increased risk of complications as well as a greater amount of drainage fluid postoperatively27. The cost of robotic surgery is also significantly higher than conventional open surgery²⁸. Therefore, surgeons should select patients based on various factors including size of the gland, location of tumour, expectation of the patients, availability of experts and equipment beforehand.



Figure 5: Day 8 postoperative photo for a patient underwentwho had undergone robotic BABA thyoidectomy. The nipples are shaded. The arrows (blue and red) indicate the port sites. The specimen was extracted through the right axilla port (indicated by red arrow).



Figure 6: The same patient in Figure 5 after robotic BABA total thyroidectomy

Conclusion

With the current advances in new technologies, we are now performing surgery by smaller incisions to improve the aesthetic outcome. Surgery can be performed under three-dimensional view in a more ergonomic way by robotic-assisted surgery. While laparoscopic adrenalectomy is regarded as the gold standard for adrenal pathology, endoscopic and robotic



thyroidectomies are still reserved in experienced centres taking care of the group of patients with a high expectation on cosmetic outcome. Further studies are required to assess the long term result of these procedures.

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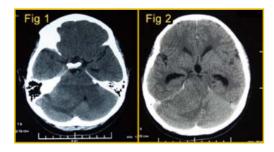


Radiology Quiz

Radiology Quiz

Dr. KS TAI

Consultant Radiologist, Department of Radiology, Queen Mary Hospital, Hospital Authority



Clinical History:

Eleven years old boy presented with headache for 1 month. Noted clumsiness in holding chopsticks and slurred speech. CT scan of the brain was performed. Please comment on the imaging findings, suggest further imaging evaluation if necessary and give your diagnosis/differential diagnosis. (Fig 1 & 2)



Hong Kong Parkinson's Disease Foundation 香港柏金遞症基金

2013 Annual Scientific Meeting Update in Management of Parkinson's Disease

Date: 7th Sep 2013(Sat)

Time: 2:00pm - 5:00pm

Venue: Assembly Hall | & ||, 4/F North Tower, YMCA of HK, 41 Salibury Road, Tsim Sha Tsui, Kowloon

Chairperson: Prof. Shu Leong Ho

Opening Address	
Update in Surgical Treatment of Parkinson's Disease	Dr. Benedict Taw
Update in Pharmacotherapy Management for Parkinson's Disease	Ms. Carol Fan
Tea Break	
Development of Physiotherapy Service for Patients with Parkinson's Disease - Experience at QEH	Mr. Daniel Chau
Long term effects of pragmatic fall prevention programs in people with Parkinson's Disease	Ms. Irene Wong

Closing Remarks

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Only 150 seats are available on a first come first served basis. CME & CPD points will be accredited and certificate will be provided. Please register online www.hkpdf.org.hk/activity_tc.php.



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	9 Sep	Clinical diagnosis and management in common binocular disorders in children	Ms. Rufina Tin-yan CHAN BOptom, MOptom, FAAO	
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雴・

・三年六月廿

「關注肥胖愛健康」新聞發佈會

新聞稿

鑑於本港兒童的肥胖問題日益嚴重,本會早前委託香港中文大學香港亞太研究所進行一項有關學齡兒童肥胖的電話調查,訪問香港市民對肥胖成因及影響、兒童的運動及飲食習慣等的認知,藉此了解大眾對兒童肥胖的認識及提高社會各界對兒童肥胖問題的關注,讓兒童能更健康地成長。

是次調查以電話訪問 513 位 20-59 歲市民,其中 76.7% 受訪者有高中至大學學士或以上程度,70.1% 受訪者是已婚人士, 35.8% 受訪者有就讀幼稚園及小學的子女。

1. 約三份一受訪市民認為香港兒童肥胖問題嚴重

衛生署學生健康服務的最新統計數字,二零一一至二零一二年的小學生過重及肥胖比例為20.9%,比一九九七至 一九九八學年的16.4% 高出4.5%,顯示此問題近年仍有惡化趨勢;是次問卷調查中,只有約三份一市民認為香港兒童 肥胖問題嚴重,顯示社會各界對此問題要多加關注。

學齡兒童肥胖可引致糖尿病、高血壓、及較易被忽略的病症,如胃酸倒流、 睡眠窒息綜合症及脂肪肝等疾病.根據中文大學調查顯示,約77%肥胖兒童曾患上脂肪肝,情況令人擔憂。另外,有 研究數據顯示,自1997年至2007年間,本港肥胖兒童患上二型糖尿的數字,增長幅度接近10倍。

2. 正確認識肥胖問題

根據是次調查結果顯示,本會表示雖有接近八成受訪者有高中至大學學士或以上學歷, 但對肥胖的認知仍有待改善,包括:

1) 約四成人不知道睡眠不足可引致肥胖

- 2) 約五成人不知道餵哺母乳可減低兒童肥胖的機會
- 3) 約四成五人不知道兒童少年肥胖會增加成年時期肥胖的風險
- 4)約有三成人不知道肥胖或可導致兒童患上情緒病

3. 健康體格由改變生活習慣開始

有見及此,本會提出以下八項建議,希望市民改變生活習慣,降低肥胖風險

- 1)健康飲食習慣: 培養三低一高飲食習慣(低脂、低鹽、低糖及高纖)
- 2) 有足夠的運動: 每星期三次,每次半小時以上的帶氧運動
- 3) 恆常量度血壓: 兒童於不同年齡有不同的血壓標準,鼓勵家長定時為有肥胖問題的兒童安排量度血壓,並與醫生作相應
- 4) 有足夠的睡眠: 跟進建議學童一定要有足夠的睡眠,因缺乏睡眠可引致精神不足及肥胖
- 5) 鼓勵餵哺母乳: 母乳餵哺能减低兒童過胖的危機,避免餵養過量亦是預防兒童肥胖的重要一環
- 6) 定期身體檢查: 鼓勵家長為肥胖的兒童及青少年向醫生查詢相關健康狀況及作定期身體檢查,並積極控制體重,預防肥 胖相關的併發症
- 7) 不吸煙或飲酒: 鼓勵家長以身作則,不要吸煙或飲酒
- 8) 推動各界合作:本會促請飲食業界一同推動普及健康飲食文化,不單有更多食物供應商為學校提供營養餐單,更於食肆 內提供更多健康食物

香港醫學組織聯會於一九六五年成立,現有一百三十四個成員組織。創會成員為香港醫學會及英國醫學會香港分會。 學會成員包括:醫生、牙醫、護士、藥劑師及各專職醫療團體。香港醫學組織聯會致力為業界提供服務及聯系各屬會, 積極向社會推廣健康教育資訊。

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聯絡代表:陳小姐(Nancy)

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Federation News

FMSHK Press Conference on 23 Jun 2013

In response to the increasing concern in child obesity, the FMSHK has commissioned Hong Kong Institute of Asia-Pacific Studies to conduct a telephone survey on child obesity in the territory in Jun, which covered the public perception and understanding of health issues related to obesity, exercise and dietary habit of local children. A press conference was held on 23 Jun 2013, presenting the survey result and recommendations on this issue. (The Press Release is on Page 23)

With support of the media, the summary was reported in television news and 13 local newspapers. We hope to raise the awareness of child obesity amongst public, professionals and other industry partners, in order to encourage a healthy growth environment for our children.



CERTIFICATE COURSE FOR NURSES AND ALLIED HEALTH PROFESSIONALS						
	CERTIFI	ICATE COURSE FOR NURSES AND	ALLIED HEAL	TH PROFESSIO	JNALS	
Certif	icate Co	ourse on	CME	CNE Course	Course No. C	220
		iratory cine 2013	Jointly organis	sed by		T
	GUI		The Federation of Medic Societies of Hong Kong		美國胸肺學院 (港澳分會)	
	Date	Topics		Speakers		
	18 Sep	Diagnostic investigations in the managemer	nt of lung cancer	Dr. Johnny Wai-m Consultant (Medicine) Queen Elizabeth Hospita		
	25 Sep	Approach to the management of difficult pne	eumonias	Dr. Chung-ming C Consultant (Medicine and United Christian Hospital	d Geriatrics)	
	2 Oct	Extracorporeal Membrane Oxygenation (EC Management of Fulminant Pneumonia	CMO) in	Dr. Arthur Chun-w Associate Consultant (In Pamela Youde Netherson	tensive Care Unit)	
	9 Oct	Principles and Practice in Management of R	Respiratory Failure	Dr. Henry Kai-him Associate Consultant (Or Queen Mary Hospital		
	16 Oct	Key Concepts and Updates in Pulmonary R	ehabilitation	Dr. Raymond Wai Senior Medical Officer (F Ruttonjee and Tang Shiu	espiratory Medicine)	
	23 Oct	Lung Cancer Management: current state of	knowledge	Dr. James Chung Assistant Professor Department of Medicine The University of Hong K		
Enquiry : The Secretariat of The Federation of Medical Societies of Hong Kong Tel.: 2527 8898 Fax: 2865 0345 Email: info@fmshk.org						



Annual Scientific Meeting 2013 Obesity Related Disorders: An Emerging Epidemic

On 23 June 2013, the Federation successfully held our Annual Scientific Meeting 2013 in Sheraton Hotel and Towers, to achieve collaboration and information exchange among health care experts.

The theme this year was "Obesity-related disorders: an emerging epidemic", a very important health issue lately. A total of 17 talks delivered on a range of important aspects of obesity and complications from prevention to treatment, attracting a total attendance of 250 from medical, nursing, pharmaceutical and allied health professionals.

Officiating the opening ceremony, FMSHK was much privileged to have distinguished guests, comprising Dr. Ko Wing Man, BBS, JP, Secretary for Food and Health; Prof. Fok Tai Fai, Vice President of Hong Kong Academy of Medicine; Dr. Regina Ching, Consultant of Non Communicable Diseases of Department of Health; Dr. Kenneth Fu, President of Hong Kong Public Doctors' Association; Dr Sigmund Leung, JP, President of Hong Kong Dental Association; Ms. Ellen Ku, President of College of Nursing of Hong Kong; Mr. Gordon Cheung, President of Hong Kong Nutrition Association Ltd, and Dr. Raymond Lo, President of FMSHK. We designed a jigsaw puzzle with 8 important health messages to be brought home after the meeting by delegates and guests.

We would like to express our sincere gratitude to Dr. Raymond Lo, President of FMSHK and Dr. Mario Chak, Chairman of Organizing Committee, and to all our supporting sponsors. Last but not the least, heartfelt appreciation must be expressed to the following chairmen and speakers, and the FMSHK secretariat. We look forward to seeing you in the next Annual Scientific Meeting in 2014!

Prof. Alice KONG; Prof. Bernard CHEUNG; Prof. Brian TOMLINSON; Prof. Kwok-wai NG; Prof. YK WING; Dr. Regina CHING; Dr. Aaron YU; Dr. Annie KUNG; Dr. Ben FONG; Dr. Benjamin WONG; Dr. Chi-wai MAN; Dr. Chung-mo CHOW; Dr. Chun-on MOK; Dr. Jamie LAM; Dr. Jane CHAN; Dr. Mario CHAK; Dr. Maureen WONG; Dr. Peter PANG; Dr. Phyllis CHAN; Dr. Raymond LO; Dr. Sik-nin WONG; Dr. Vanessa NG; Dr. Yinkwok NG; Mr. Gordon CHEUNG; Ms Sally POON; Ms. Jenny NG







×.



The Hong Kong Society of Certified Prosthetist-Orthotists

In Hong Kong, Prosthetics and Orthotics (P&O) services have been provided to the community since the 60's. To better promote and enhance the quality of P&O services, the Hong Kong Society of Certified Prosthetist-Orthotists (HKSCPO) was established in 1995.

HKSCPO is an organization representing the prosthetics and orthotics professionals in Hong Kong. To become a full member of the Society, applicants have to complete a programme of Bachelor Degree in Prosthetics and/or Orthotics or equivalent, and with one year postdegree clinical experience under the supervision of a full member of HKSCPO. Full members are granted with the title - Certified Prosthetist-Orthotist, CPO(HK); Certified Prosthetist CP(HK) or Certified Orthotist CO(HK) subject to their area(s) of specialty. There are over 120 trained Prosthetist-Orthotists in Hong Kong practising in



the private or public sector. Seventy-six of them are full members of HKSCPO and 5 are associated members.

Prosthetics and Orthotics are clinical applications of Biomedical Engineering, so the Society has also worked closely with the education institute and supports the broadening of P&O education to formulate a Bachelor of Science (Honours) Degree Programme in Biomedical Engineering, which has been duly recognised by the International Society for Prosthetics and Orthotics as an ISPO Category I Professional Training programme, and the Hong Kong Institution of Engineers as an accredited Engineering programme. We strongly believe that this evolution will bring the P&O development to its new dimensions.

For many years, our members collaborate with other local and mainland health care professionals to deliver voluntary services, such as the Western and Central District Health Festival (Hong Kong) and the Global Biomedical Service (Chinese Mainland). Moreover, the P&O professionals in Hong Kong also actively participate in various rehabilitation programmes in different areas of the Chinese Mainland. With the rapid development of P&O, HKSCPO will enhance its communication and collaboration with the other disciplines in Hong Kong and Chinese Mainland.

The Hong Kong Paediatric Society

The Hong Kong Paediatric Society (HKPS) was firstly formed in 1962 by a group of devoted paediatricians with the Society emblem of a mother tending her child indicating our dedication to child health. HKPS became a member of the Federation of Medical Societies of Hong Kong in 1965.

Throughout the years, Paediatrics has been developed as one of the well-established specialties in Hong Kong with over 500 qualified fellows. The Hong Kong Journal of Paediatrics (HKJP) was firstly published by HKPS in 1984 as official journal and later on jointly organized by the Hong Kong College of Paediatricians (HKCP) and HKPS since 1996.

Year 2012 was the 50th Anniversary for both HKPS and development of Child Health in Hong Kong. HKPS has organized a series of professional and public activities as the half a century celebration for paediatrics in Hong Kong. Details of the 50th Anniversary programme can be found at the website: http://www.medicine.org.hk/hkps/50anniversary/info_objectives.php

- 1. The Golden Jubilee Celebration with Oration on Child Health 2012 and
- Special Seminar on Centre of Excellence in Paediatrics in Hong Kong on 26th May 2012
- 2. Four Professional Fora from April to July 2012
- 3. Four Public Education sessions from May to Oct 2012
- 4. Multidisciplinary Conference on Child Health on 17th -19th Aug 2012, jointly organized with the American Academy of Pediatrics
- 5. Anniversary Banquet on 17th Aug 2012
- 6. 50th Anniversary Monograph
- 7. Time Capsule
- 8. Fun Fair for Public on 7th Oct 2012
- 9. MIMS Special Edition for 50th Anniversary of HKPS
- 10. Roadshow Education Video to Public
- 11. Two Health Surveys and Press Conferences
- 12. Child Health Policy (continue in 2013)



Formulating a Child Health Policy for Hong Kong is one of the major objectives of 50th Anniversary. A Steering Committee was set up to consolidate the ideas and four Drafting Groups have been formed to start the drafting procedure. A series of Professional Fora on child health are scheduled throughout this year to collect views from all stakeholders. In addition, HKPS has continued to organize two annual named lectures C. Elaine Field Memorial Lecture and J. Hutchison Memorial Lecture in March. The Annual Scientific meeting is scheduled in September this year. HKPS would continue our mission in promotion of child health and child advocacy.

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				* HKMA Kowloon East Community Network New Understanding in Treatment of Osteoporosis	7	* YCPG Youth Forum 2013
4	Ŋ	* HKMA Council Meeting	7	 HKMA Hong Kong East Community Network: The Effectiveness of HPV Vaccine in Makonal Immunization Program Program Sancon Gast Community HKMA Kowhon East Community Network: Third Scare Common Sanchar Network: Third Scare Common Sanchar Network: Third Scare Course on Coll Network: The Course on Coll Network: Third Scare Course on Course o	6	01
	12	* HKMA Kowloon West Community Network - Medical and Surgical Treatment of Osteoarthritis of the Knee	 Hong Kong Neurosurgical Society Monthly Academic Meeting-Deep brain stimulation- more than Parkinson's disease HKMA Central, Western & Southern Community Network-Modern Understanding in the Management 	* HKMA Kowloon East Community Network- Update On Management of Eczema * HKFMS Foundation Committee Meeting	16	* HKMA Kowloon East Community Network- Third Session of the CME Course for Health Personnel 2013. Management of Breast Cancer
* The 1st HKMA Dragon Boat Fun Day	61	20	21	 HKMA Hong Kong East Community Network Management d Insomnia and Mood Disorder HKMA Kowloon East Community Network: Final Session of the "Certificate Course on Alzheimer's Disease". Drug Thangy and Norphamacological Intervention for Dementia FMSHK Executive Committee & Council 2222 	 HKMA Yau Tsim Mong Community Network- Management of Type 2 Diabetic Patients with Comorbidities 23 	24
* HKMAPS 3rd Seasonal Competition	26	* HKMA Kowloon West Community Network- Latest Development in Modern Oral Contraceptives	* HKMA Central, Western & Southern Community Network- Andropause and its Management 288	 * DH-HKMA CME on HIV & Press Conference 29 	30	 * HKMA YTM Community Network- Certificate Course on Bringing Better Health to Our Community 2013 (Session 4)

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Calendar of Events

Dete	/ = .		and the second	End to (Dense In
Date	/ Time	1.00	Function	Enquiry / Remarks
	THU	1:00 pm	HKMA Kowloon East Community Network- New Understanding in Treatment of Osteoporosis Organiser: HKMA Kowloon East Community Network, Speaker: Dr. IP Kai Yuen, Venue: Lei Garden Restaurant, Kwun Tong	Miss Hana YEUNG Tel: 2527 8285 1 CME point
3	SAT	9:00 am	YCPG Youth Forum 2013 Organiser: The Hong Kong Calition of Professional Services, Venue: Run Run Shaw Hall, Hong Kong Academy of Medicine	Miss Phoebe WONG Tel: 2527 8285 0.5 CME point
6	TUE	8:00 pm	HKMA Council Meeting Organiser: The Hong Kong Medical Association, Chairman: Dr. TSE Hung Hing, Venue: HKMA Head Office (5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong)	Ms. Christine WONG Tel: 2527 8285
8	THU	1:00 pm 1:00 pm 2:00 pm 8:00 pm	Chemotherapy-induced Nausea and Vomiting Organiser: The Hong Kong Medical Association, Chairman: Dr. NG Fook Hong, Speaker: Dr. CHUA Tsin Tien, Daniel, Venue: HKMA Central Premises	Ms. Candice TONG Tel: 2527 8285 1 CME point Miss Hana YEUNG Tel: 2527 8285 1 CME point CME Dept Tel: 2527 8452 1 CME point Ms. Nancy CHAN Tel: 2527 8898
13	TUE	1:00 pm	HKMA Kowloon West Community Network - Medical and Surgical Treatment of Osteoarthritis of the Knee Organiser: HKMA Kowloon West Community Network, Speaker: Dr. LEE On Bong, Venue: Panda Hotel,Tsuen Wan	Miss Hana YEUNG Tel: 2527 8285 1 CME point
14	WED	7:30 am 1:00 pm	Hong Kong Neurosurgical Society Monthly Academic Meeting– Deep brain stimulation- more than Parkinson's disease Organiser: Hong Kong Neurosurgical Society, Chairman: Dr. POON Tak Lap, Speaker: Dr. CHU Sai Lok, Caspar, Venue: Seminar Room, Ground Floor, Block A, Queen Elizabeth Hospital HKMA Central, Western & Southern Community Network- Modern Understanding in the Management of Acute Pain Organiser: HKMA Central, Western & Southern Community Network, Speaker: Dr. WONG Kar Fai, Richard, Venue: HKMA Central Premises	Dr. Gilberto LEUNG Tel: 2255 3368 1.5 CME points Miss Hana YEUNG Tel: 2527 8285 1 CME point
15	тни	1:00 pm 8:00 pm	Organiser: HKMA Koloon East Community Network, Speaker: Dr. CHAN Shu Yu, Venue: Crowne Plaza Hong Kong Kowloon East, Tseung Kwan O	Miss Hana YEUNG Tel: 2527 8285 1 CME point Ms. Nancy CHAN Tel: 2527 8898
17	SAT	1:30 pm	HKMA Kowloon East Community Network- Third Session of the CME Course for Health Personnel 2013: Management of Breast Cancer Organiser: HKMA Kowloon East Community Network, Chairman: Dr. LEUNG Man Fuk, Speaker: Dr. CHAN Wing Wai, Sharon, Venue: United Christian Hospital	Ms. Cordy WONG Ms. Marina PUN Tel: 3513 3087 Tel: 3513 4888 1.5 CME points
8	SUN		The 1st HKMA Dragon Boat Fun Day Organiser: The Hong Kong Medical Association, Venue: Sai Kung	
22	тни	1:00 pm 1:00 pm 7:00 pm	Organiser: HKMA Hong Kong East Community Network, Chairman: Dr. YOUNG Ying Nam, Dominic, Speaker: Dr. CHANG Chi Lok, Venue: HKMA Head Office (5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong) HKMA Kowloon East Community Network- Final Session of the"Certificate Course on Alzheimer's Disease": Drug Therapy and Non-pharmacological Intervention for Dementia Organiser: HKMA Kowloon East Community Network, Chairman: Dr. AU Ka Kui, Gary, Speaker: Dr. TAM Kui Fu, Stanley, Venue: Lei Garden Restaurant, Kwun Tong	Ms. Candice TONG Tel: 2527 8285 1 CME point Miss Hana YEUNG Tel: 2527 8285 1 CME point Ms. Nancy CHAN Tel: 2527 8898
23	FRI	1:00 pm	HKMA Yau Tsim Mong Community Network- Management of Type 2 Diabetic Patients with Comorbidities Organiser: HKMA Yau Tsim Mong Community Network, Chairman: Dr. LAM Tzit Yuen, David, Speaker: Dr. CHAN Wing Bun, Venue: Jade Ballroom, Level 2, Eaton Smart, Hong Kong, 380 Nathan Road, Kowloon	Ms. Candice TONG Tel: 2527 8285 1 CME point
25	SUN	2:00 pm	HKMAPS 3rd Seasonal Competition Organiser: The Hong Kong Medical Association Photographic Society, Chairman: Dr. PANG Lai Man, Amy, Venue: HKMA Head Office (5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong)	Miss Nadio HO Tel: 2527 8285
27	TUE	1:00 pm	HKMA Kowloon West Community Network- Latest Development in Modern Oral Contraceptives Organiser: HKMA Kowloon West Community Network, Chairman: Dr. WONG Wai Hong, Speaker: Dr. KUN Ka Yan, Venue: Crystal Room I-III, 30/F, Panda Hotel, 3 Tsuen Wah Street, Tsuen Wan, N.T	Miss Hana YEUNG Tel: 2527 8285
28	WED		HKMA Central, Western & Southern Community Network- Andropause and its Management Organiser: HKMA Central, Western & Southern Community Network, Speaker: Dr. YIP Wai Chun, Andrew, Venue: HKMA Central Premises	Miss Hana YEUNG Tel: 2527 8285 1 CME point
	тни	1:00 pm	DH-HKMA CME on HIV & Press Conference Organiser: The Hong Kong Medical Association, Venue: HKMA Central Premises	Ms SHU Bo Yee Tel: 3143 7200 1.5 CME points
31	SAT	1:00 pm	HKMA YTM Community Network- Certificate Course on Bringing Better Health to Our Community 2013 (Session 4) Organiser: HKMA Yau Tsim Mong Community Network and Department of Family Medicine & Ceneral Outpatient Clinic and Department of Medicine, Kowloon Central Cluster, Speaker: Dr. LAM Chun; Dr. John CHAN, Venue: Block M, Lecture Theatre, Queen Elizabeth Hospital, 30 Gascoigne Road, Kowloon, Hong Kong	Ms. Candice TONG Tel: 2527 8285

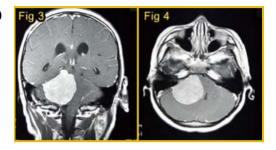


Diagnosis: Meningioma

CT findings:

- 1. Large predominantly isodense right posterior fossa mass abutting the tentorium with mass effect on the adjacent cerebellum and brainstem.
- 2. Compression of the 4th ventricle with mildly dilated 3rd and lateral ventricles.
- 3. No intralesional calcification or haemorrhage.
- 4. No skull vault hyperostosis.

MRI findings: (Fig 3&4)



- 1. Large T1W hypointense and T2W heterogeneous hyperintense right CP angle mass abutting the tentorium.
- 2. Moderate largely homogeneous contrast enhancement without dural tail.
- 3. Mass effect with compression of the 4th ventricle, brainstem and cerebellum.
- 4. Mild hydrocephalus with T2W hyperintense transependymal oedema.
- 5. Slight extension to normal size right IAM.

Operative findings:

Surgical excision of the right CP angle mass was performed and pathology revealed WHO Grade I meningioma.

Discussion:

Meningiomas are uncommon childhood tumours. In general, paediatric meningiomas are commonly quoted as constituting 1.5 - 1.8% of all meningiomas and 0.4 - 4.1% of all childhood brain tumours. In contrast to adult meningiomas, there is no female preponderance among paediatric meningiomas, and in certain series male subjects appear to outnumber their female counterparts.

Childhood meningiomas are characteristically known to have non-specific symptoms and diagnosis is often difficult. The elasticity of the skull and non-cooperation among children compounds the problem. Quite often a local swelling of the cranial vault may be the first sign. Common clinical manifestations of paediatric meningiomas include signs of increased intracranial tension, focal neurological deficits, seizures and other signs based on lesion location.

The incidence of calcification and hyperostosis in CT scan is high especially in those paediatric meningiomas associated with neurofibromatosis (NF). On CT scanning, hyperostosis of the overlying bone is seen in 50% of tumours and 50% have intra-tumoural calcification. Magnetic resonance (MR) characteristics of paediatric meningiomas are similar to adult meningiomas. On MR imaging, the tumours are usually isointense to hypointense on T1, iso- to hypointense on T2 and exhibit good contrast enhancement. T2 hyperintensities, if seen, denote microcystic changes, dilated blood vessels, and high cellularity and usually suggest a syncitial or angiomatous variant. Tumour ADC values do not help to predict tumour grade or clinical type. Presence of a dural tail sign on MR imaging is not obvious in the majority of paediatric meningiomas. Convexity and parasagittal meningiomas are the most frequent sites (>50%) for meningiomas in both adults as well as in several series of paediatric meningiomas. However, paediatric meningiomas are known to favour uncommon sites like the skull base and posterior fossa locations. A second feature that seems to be typical of the paediatric age is the higher incidence of meningiomas located within the ventricular system or lacking any apparent dural attachment like deep in the Sylvian fissure. Other unique aspects reported for paediatric meningiomas are large tumour size, cyst formation and tendency to recur. Childhood meningiomas are known to have a high incidence of atypical histopathology especially the clear cell variant and the papillary variant. The association between NF-2 and meningioma is well known, and they may share common mechanisms of pathogenesis. The possibility of NF2 should be considered in any child with a meningioma and approximately 25 - 40% of children with meningiomas have NF2.

The causal relationship between radiation and paediatric meningioma is well established. Current findings suggest a nearly ten-fold relative risk for children with radiation exposure over those without such exposure. Radiation induced meningiomas typically present at an earlier age, arise within the prior irradiation field by definition, are more likely to be multifocal and exhibit higher degrees of atypia and mitosis. There is also some suggestion of a dose effect, with higher levels of radiation exposure being associated with shorter latency periods for development of meningiomas. The goal of treatment in meningiomas is total resection with wide dural clearance. Adjuvant radiotherapy appears to be beneficial after incomplete excision of meningiomas in adults, but it is rather risky to use radiotherapy for benign and partially excised cerebral lesions during childhood. Reoperation is thought to be better than adjuvant therapy. The clinical evolution of meningiomas is not reliably predictable and remains a problem. Consequently, childhood meningiomas are considered to carry a worse prognosis (35% 10 year survival rate) than meningiomas in the adult population. Favourable prognostic factors include younger age (< 10 years), superficial location, total excision and absence of neurofibromatosis. The location and extent of excision appear to be more important than the histopathology in predicting outcome.

References:

1. Menon G, Nair S, Sudhir J, Rao BRM, Mathew A, Bahuleyan B. Childhood and adolescent meningiomas: a report of 38 cases and review of literature. Acta Neurochir 2009; 151:239–44.

2. Pinto PS, Huisman TA, Ahn E, Jordan LC, Burger P, Cohen KJ, Patay Z, Tekes A. Magnetic resonance imaging features of meningiomas in children and young adults: a retrospective study. J Neuroradiol 2012; 39:218-26

Dr. KS TAI

Consultant Radiologist, Department of Radiology, Queen Mary Hospital, Hospital Authority





Jointly organised by



Hong Kong Socie

The Federation of Medical Societies of Hong Kong

Hong Kong Society for Nursing Education

Objectives:

Crisis Intervention is a common knowledge to management in modern society. Besides natural and accidental disasters, technological and human crimes bring crisis to victims and their families. Crisis intervention in forms of critical incident debriefing, crisis interventions and acute stress reduction aim to assisting victims to cope with the impact of sudden crisis and to prevent the development of post-traumatic stress disorder and other forms of mental health problems. The participants will learn basic assessment and intervention in managing pre and post crisis situations.

Date	Topics	Speaker				
21 Aug	3. The qualities of a crisis worker Dr. Albert Chan					
28 Aug	Critical incident debriefing and crisis intervention	Founder and Director, Institute for Family and Psychology & Clinical and Counseling Psychologist				
11 Sep Basic Counselling skill and CBT						
Date : 21, 28 August 2013 and 11 September 2013 (Every Wednesday) Time : 7:00 p.m. – 10:00 p.m. Venue : Lecture Hall, 4/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong Language Media : Cantonese (Supplemented with English) Course Fee : HK\$750 (3 sessions) Certificate : Awarded to participants with a minimum attendance of 70% Enquiry : The Secretariat of The Federation of Medical Societies of Hong Kong Tel.: 2527 8898						
CME / CPD Accreditation in application A total of 9 CNE points for the whole course and the points will be awarded						

A total of 9 CNE points for the whole course and the points will be awarded according to the number of hours attended. Application form can be downloaded from website: http://www.fmshk.org

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HONG KONG SANATORIUM & HOSPITAL LI SHU PUI SYMPOSIUM 2013 RECENT ADVANCES IN MEDICAL PRACTICE



Date : 15 September 2013 (Sunday) Venue : Ballroom, JW Marriott Hotel Hong Kong

08:50 - 09:00	Welcome		Dr. Walton Ll
09:00 - 09:30	Keynote Lecture 1: The Right Doctor for the Right Procedure		Dr. Joseph CHAN
	Symposium 1 Precise and Less Invasive Procedures Ch	nairperson	Dr. William WEI Dr. Vincent KWOK
09:30 - 09:45	Cardiac Intervention		Dr. Duncan HO
09:45 - 10:00	Application of Robot in General Surgery		Dr. Michael Ll
10:00 - 10:15	Makoplasty – Optimal Option of Joint Replacement		Dr. Stephen WU
10:15 - 10:30	Endoscopic Surgery for the Oesophagus		Prof. Simon LAW (HKU)
10:30 - 10:40	Q & A		
10:40 - 11:00	Coffee Break		
	Symposium 2 Diagnostics Ch	nairperson	Dr. LAI Kar Neng Dr. WONG Wai Sang
11:00 - 11:15	Ultrasound in Head & Neck Medical Practice-Is There a Limit?		Prof. Anil T. AHUJA (CUHK)
11:15 – 11:30	Bronchoscopy and Beyond		Dr. LAM Bing
11:30 - 11:45	How Would Prenatal Diagnosis Make a Difference in Modern Obstetrics?		Dr. Danny LEUNG
11:45 – 12:00	Updates on Digestive Endoscopy – Diagnosis and Treatment		Dr. Angus CHAN
12:00 - 12:10	Q & A		
12:10 - 13:00	Li Shu Pui Lecture Cł	nairperson	Dr. Gladys LO
	How MR is Changing Medical Decisions		Prof. Dieter ENZMANN (UCLA)
13:00 - 14:00	Lunch		
	Symposium 3 Genetics Ch	nairperson	Dr. Edmond MA Dr. Raymond LIANG
14:00 - 14:15	Gems and Caveats of Next Generation Sequencing in Molecula	ar Diagnosis	Dr. Chris CHAN
14:15 - 14:30	Paediatric Genetics – All About the "Next Generation"		Dr. Brian CHUNG (HKU)
14:30 - 14:45	An Update on Hereditary Breast Cancer		Dr. Ava KWONG (HKU)
14:45 - 14:55	Q & A		
14:55 – 15:25	Keynote Lecture 2 : Liver Surgery in Private Hospital		Dr. FAN Sheung Tat
15:25 – 15:45	Coffee Break		
	Symposium 4 GP Forum Ch	nairperson	Dr. Billy CHIU Dr. CHAN On On
15:45 - 16:00	Corneal Transplant – Indications & Results		Dr. Arthur CHENG
16:00 - 16:15	Modern Oncology Treatments		Dr. KWAN Wing Hong
16:15 - 16:30	Contemporary Dental Implant Therapy – An Immediate Soluti	on	Dr. Alfred LAU
16:30 - 16:45	Allergen Desensitization		Dr. LEE Tak Hong
16:45 – 17:00	PET for Non Malignant Diseases		Dr. Garrett HO
	*Content is subject to change without prior notice		
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- > With innovative dual releases of active drug to provide significantly extended heartburn control^{1,2}
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- > Superior efficacy in the management of NERD⁵
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- > Lifestyle-friendly PPI: once daily, taken with or without food^{1,8,9}
- > Acceptable safety and tolerability profiles with less clopidogrel interaction^{1,10}

For further information, consult full prescribing information.

Reference: 1, Dexilant prescribing information (DEX0912 PIHK). 2, Wittbrodt ET et al., Clin Exp Gastroenterol 2009;2:117-28. 3, Fass R et al., Aliment Pharmacol Ther 2009;29:1261-72. 4, Sharma P et al., Aliment Pharmacol Ther 2009;29:731-41. 5. Wu MS et al., Aliment Pharmacol Ther 2013;38:190-201 6. Metz DC et al., Aliment Pharmacol Ther 2009;29:731-41. 5. Wu MS et al., Aliment Pharmacol Ther 2013;38:190-201 6. Metz DC et al., Aliment Pharmacol Ther 2009;29:742-54. 7. Howden CW et al., Aliment Pharmacol Ther 2009;30:895-907. 8. Lee RD et al., Aliment Pharmacol Ther 2009;29:824-33. 9. Lee RD et al., Aliment Pharmacol Ther 2013;31:1001-11. 10. Frelinger AL et al., J Am coll Cardiol 2012;59:1304-11. *96% of patient on Dexlansoprazole 60mg achieved 24-h heartburn-free days⁶





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