P7

**Mir-542-3p suppresses colorectal cancer progression through targeting survivin**

C Ye, Z Shen, K Jiang, Y Ye and S Wang
Department of Gastroenterological Surgery, People’s Hospital, Peking University, Beijing 100044, People’s Republic of China

**Aim:** miR-542-3p has been reported to be a tumor suppressor in several tumor types, while its role in colorectal cancer (CRC) has not been fully understood.

**Methods:** Real-time PCR was used to detect the expression of miR-542-3p in tissues and plasma of CRC patients. The impact of miR-542-3p on the aggressive phenotypes of CRC cells were evaluated by in vitro and in vivo functional assays. Luciferase activity assay was conducted to confirm the direct binding of miR-542-3p and Survivin.

**Results:** miR-542-3p was decreased in CRC cell lines that derived from metastatic sites. Among the 65 CRC patients enrolled in this study, 63.08% (41/65) had a decreased miR-542-3p expression in cancerous tissues. miR-542-3p expression was associated with lymphovascular invasion (p = 0.008), distant metastasis (p = 0.006), tumor stage (p = 0.034) and patients’ survival (p = 0.027). A decreased expression of miR-542-3p in plasma was detected in stage IV patients. In vitro and in vivo experiments showed that miR-542-3p could inhibit the aggressive phenotypes of CRC cells. Finally, Survivin was identified as a direct target of miR-542-3p in CRC.

**Conclusion:** miR-542-3p expression is decreased and associated with prognosis in CRC patients. It inhibits the aggressive phenotypes of CRC cell lines. Survivin is a direct target of miR-542-3p in CRC.

P8

**The impact of indocyanine-green fluorescence imaging on left-sided colonic resection – a prospective study**

CC Foo, RYK Chang, NF Shum, JHW Man, KK Ng, J Yip and WL Law
Queen Mary Hospital 102 Pok Fu Lam Road, Hong Kong

**Aim:** Perfusion is one of the most important factors in colonic anastomotic healing. The near-infrared light (NIR) technology and intravenous fluorescent dye with indocyanine-green (ICG) allows intra-operative assessment of colonic microvascular perfusion. This study aims to assess the impact of using NIR+ICG in left-sided colonic resections.

**Methods:** A prospective study was carried out for patients who had colonic or rectal resections that involve ligation of the inferior mesenteric artery.

**Results:** 30 patients were recruited. The mean age was 64.5 years. 66.7% were male. They had either cancer of the descending colon (3.3%), sigmoid colon (26.7%) or rectum (70.0%). Total mesorectal excision was performed in 63.3% of the cases. For the site of transection, there was a change in decision in 53.3% of the cases, in which 50.0% had a more proximal transection and 3.3% had a more distal transection. When there was a change of transection site, the mean distance between the intended and eventual transection site was 3.90 ± 3.34 cm (range 1-12 cm). In 10.0% of the cases, there was a change in the decision on whether to mobilize the splenic flexure of the colon or not. Defunctioning stoma was performed in 70.0% of the cases. There was no clinical anastomotic leakage observed.

**Conclusion:** The use of NIR+ICG to assess bowel perfusion in left-sided colonic resection has a major impact on intraoperative decision. There is a role for further studies to evaluate whether it has a positive impact on reducing anastomotic leakage rate.

P9

**Identifying a safe range of stimulation current for intraoperative neuromonitoring of the recurrent laryngeal nerve: results from a canine model**

T Li, G Zhou, XD Yang, KW Jiang and S Wang
Department of Gastrointestinal Surgery, Surgical Oncology Laboratory, Peking University People’s Hospital, Peking University, Beijing 100044, China

**Aim:** To develop an experimental canine model to determine whether supramaximal stimulation during intraoperative neuromonitoring (IONM) of the recurrent laryngeal nerve (RLN) could induce nerve
damage, and investigate the safe range of stimulation current intensity.

**Methods:** Total thyroidectomies were performed on twenty dogs, and their RLNs were stimulated with a current of 5–20 mA (stepwise in 5 mA increments) for one minute. The evoked electromyography (EMG) of vocal muscles before and after supramaximal stimulation were recorded and compared. Acute microstructural morphological changes in the RLNs were observed immediately postoperatively under an electron microscope.

**Results:** The average stimulating threshold for RLNs stimulated with 15 mA and 20 mA showed no significant changes compared to the unstimulated RLNs (15 mA group: 0.320 ± 0.123 mA vs. 0.315 ± 0.097 mA, p = 0.847; 20 mA group: 0.305 ± 0.101 mA vs. 0.300 ± 0.103 mA, p = 0.758). Similar outcomes were shown in average evoked EMG amplitude (15 mA group: 1,025.500 ± 267.962 μV vs. 1,020.600 ± 273.336 μV, p = 0.834; 20 mA group: 1,162.300 ± 274.763 μV vs. 1,199.500 ± 257.701 μV, p = 0.148). However, obvious acute microstructural morphological changes were observed in the nerves that were stimulated with 20 mA.

**Conclusion:** A stimulation intensity less than 15 mA was safe for IONM of the RLN.

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**P10**

**Impact of an evaluation system- SOMIP (surgical outcomes and monitoring & improvement program), in a regional hospital**

KKF Wong, SK Leung and CW Man

Department of surgery, Tuen Mun Hospital, Hong Kong

**Background:** SOMIP was started in Hospital Authority (HA) in 2008 in order to monitor and improve the surgical outcomes of public hospitals.

**Aim:** Evaluate the impact of this audit system in the surgical services outcome in Tuen Mun Hospital (TMH).

**Method:** 7 years (7/2008- 6/2015) annual reports were reviewed. Area for improvement were discussed among hospital staffs with corresponding improvement programs are started as follows:

- (A) Intra-departmental events:
  1. Specialists’ night round to review all new patients
  2. Monthly audit meeting
  3. Communication skills in wards, e.g. CRM, SBAR, MEWS

- (B) Inter-departmental events:
  1. Monthly Surgical Quality & Safety Circle meeting
  2. Liaisons system with ICU
  3. Sepsis bundle protocol

- (C) Hospital events:
  1. Additional emergency operation sessions
  2. Additional surgical HDU beds
  3. Post-operative pneumonia prevention program

**Results:** From 7/2008 to 6/2015, 12636 operations (major/ultramajor) were performed. From 7/2014 to 6/2015, 868 elective and 627 emergency major/ultra-major operations (OT) were performed in TMH. Elective OT mortality rate (2014’-2015’) was 1.2% (highest in 2009’-2010’: 2.4%) while emergency OT mortality rate (2014’-2015’) was 4.9% (highest in 2009’-2010’: 13.5%).

There is a decrease in both elective and emergency OT mortality rate throughout the years. Emergency operation morbidity rate dropped from 36.8% (2009’-2010’) to 28.9% (2014’-2015’), but elective operation morbidity rate remains static (~15%).

**Conclusion:** Deficits were identified in this audit program. With specific improvement programs, better surgical services can be achieved.

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**P11**

*A retrospective review with long term follow-up of ultrasound screening detected non-palpable breast cancer: a population-based study from single-center in china (2001–2014).*

R Yao, B Pan and Q Sun

Department of Breast Surgery, Peking Union Medical College Hospital No.1 Shuailuyuan Wangfujing, Dongcheng district, Beijing, China

**Background:** Milestone studies showed that ultrasound (US) was an effective primary screening test for breast cancer, and it has been officially designated to be the initial imaging test for breast cancer screening in China, due to its improved sensitivity in Chinese women who usually have denser breasts and develop breast cancer earlier than Caucasian counterparts. However, there is little data about the tumor biology and long-term survival of the US-detected non-palpable breast cancer (NPBC) in Chinese population.

**Methods:** From January 2001 to December 2014, 572 asymptomatic women with positive (BI-RADS 4 and 5) initial screening US underwent biopsies and were diagnosed in Peking Union Medical College
Hospital. The clinicopathological features, treatment choice, 10-year disease-free survival (DFS) and overall survival (OS) were reviewed. Prognostic factors of US-NPBC were identified.

Results: The 572 US-NPBC comprised 8.22% of contemporary 6,958 breast cancer. The mean age at diagnosis was 51.33 (range 25–88) years. The majority of the patients presented with more invasive breast cancers, high rates of lymph node positivity, and more multifocal cancers. The mean follow-up time was 40.04 (range 1–163) months. The 5-year DFS were 91.8%, while 5-year OS were 98.1%. Multivariate analysis revealed that pT, pN and p53 was identified as DFS-predictors for US-NPBC, while OS-predictors were pN and immunophenotype.

Conclusion: This retrospective analysis with long term follow-up confirms that US-NPBC in Chinese women showed good cancer behavior and favorable prognosis. pT, pN and p53 appeared to be the most significant predictors of DFS, while pN and immunophenotype were the OS-predictors.

P12
Patient-centered multi-disciplinary team (MDT) approach for morbid obesity patients in New Territories West Cluster (NTWC), Hong Kong

MHC Lo,1 KKF Wong,1 WH Hui,1 HL Yiu,1 SK Leung,1 KKY Cheng,1 MY Ng,2 PY Wu,2 KY Ho,2 YY Ho,2 V Hung,2 MF Chow,2 VCH Cheung,3 WM Kwan,3 KC Chan,3 P Choi,4 J Koo,4 S Shing,4 A Kwan,5 AAUW Yang5 and E Wong5
1Department of Surgery, Tuen Mun Hospital, 23 Tsing Chung Koon Road, Tuen Mun, New Territories
2Medicine and Geriatrics, Tuen Mun Hospital, 23 Tsing Chung Koon Road, Tuen Mun, New Territories
3A&IC, Tuen Mun Hospital, 23 Tsing Chung Koon Road, Tuen Mun, New Territories
4Dietetic, Tuen Mun Hospital, 23 Tsing Chung Koon Road, Tuen Mun, New Territories
5Physiotherapy, Tuen Mun Hospital, 23 Tsing Chung Koon Road, Tuen Mun, New Territories

Aim: Morbid obesity is a major health problem due to its associated co-morbidities and complications. Multi-disciplinary team (MDT) approach was initiated in NTWC to provide comprehensive care for morbidly obese patients.

Methods: Patients with morbid obesity were first assessed by endocrinologists. Potential surgical candidates (aged 30–50, BMI 30–40, ambulatory, no complex co-morbidities) were reviewed in a multi-disciplinary meeting involving surgeons, specialty nurses, anesthesiologists, intensivists, dietitians and physiotherapists. Structured peri-operative dietetic assessment and physiotherapy were provided. Anesthesiologists will offer pre-operative assessment and assist in positioning of bougie for gastric tube sizing. Bariatric surgery was performed by single team of surgeons specializing in upper gastrointestinal surgery. Initial postoperative intensive care was provided by intensivists. Results of surgery performed during 1/2012 to 12/2015 were reviewed.

Results: From 1/2012 to 3/2016, 19 patients (13 females, 6 males) with mean age and BMI of 39.6 (23–52) and 41.8 (33.2-53.8) received bariatric surgery (laparoscopic sleeve gastrectomy +/- cholecystectomy) in NTWC. Mortality and morbidity rates were 0% and 5.3% (1/19) respectively. One patient was complicated with small bowel injury, which was repaired and recovered uneventfully. Upon follow-up at > = 1 year, 77% (10/13) of patients achieved >50% excessive weight loss (total weight loss x 100/initial excess weight). 87.5% (4/16) of patients showed improving metabolic diseases control, in terms of dosage reduction of anti-hypertensives and oral hypoglycemic agents, and decreasing HbA1c level. Overall results were comparable to international standards.

Conclusion: Multi-disciplinary approach is crucial in treating morbidly obese patients. Multi-specialty participation is important to achieve satisfactory results.

P13
A national report from China Liver Transplant Registry: steroid avoidance after liver transplantation for hepatocellular carcinoma

Q Wei, X Xu, L Zhuang, L Zhou, H Xie, J Wu, M Zhang, Y Shen, W Wang and S Zheng
Division of Hepatobiliary and Pancreatic Surgery, Department of Surgery, First Affiliated Hospital, Zhejiang University School of Medicine, 79 Qingchun Road, Hangzhou 310003, China

Aims: We aimed to evaluate the efficacy and safety of steroid-free immunosuppression after LT for hepatocellular carcinoma (HCC).

Methods: We analyzed HCC recipients without steroids after LT (SF group, n = 368) from January 2000 to December 2011, based on the China Liver Transplant Registry (CLTR) database. These recipients were matched 1:2 with control patients using steroids (S group, n = 736) for the same period after LT for HCC, according to propensity scores.

Results: Compared with the S group, the SF group showed higher 1-year, 3-year and 5-year overall and
tumor-free survival rates ($P < 0.05$). The patients fulfilling the Milan criteria in the SF group presented higher 1-year, 3-year and 5-year overall and tumor-free survival rates than those in the S group ($P < 0.05$). The recipients who experienced more tumor recurrence were younger, with HBV-DNA >1000 copies/ml and beyond Milan criteria ($P = 0.028$, $P < 0.001$ and $P < 0.001$). Multivariate analysis indicate that age, pretransplant HBV DNA level and Milan criteria were identified as the major risk factors associated with tumor recurrence in steroid avoidance recipients after LT. The incidences of new-onset diabetes mellitus ($21.20\%$ vs. $33.29\%$, $P < 0.001$), new-onset hypertension ($10.05\%$ vs. $18.61\%$, $P < 0.001$) and hyperlipidemia ($4.08\%$ vs. $7.20\%$, $P = 0.042$) were significantly lower in the SF group.

Conclusions: Steroid-free immunosuppression could be safe and feasible for HBV-related HCC patients in LT and could increase patient survival and tumor-free survival and reduce post-transplant complications, such as diabetes, hypertension, and hyperlipidemia. Age, HBV DNA level and Milan criteria maybe risk factors associated with tumor recurrence in steroid avoidance recipients after LT. Patients fulfilling Milan criteria can benefit the most from steroid-free immunosuppression.

Key words: steroid, liver transplantation, hepatocellular carcinoma, propensity score

P14

Outcome of closure of ileostomy after elective low anterior resection of rectal cancer: A single-centred case series

CK Tang, YW Wong and CM Poon

Background: The construction of a defunctioning loop ileostomy is a common procedure in elective low anterior resection, in an attempt to avoid the consequences of anastomotic leak following the operation. However, its subsequent closure is commonly associated with complications such as post-operative ileus. The aim of this study is to investigate the incidence of post-operative ileus and complications following closure of ileostomy after elective low anterior resection of rectal cancers.

Method: Electronic records (from Jan 2010 to Dec 2014) of patients having closure of ileostomy after low anterior resection of rectal cancer in Tuen Mun Hospital and Pok Oi Hospital, Hong Kong were extracted from database and analyzed. Primary outcome was post-operative ileus. Secondary outcomes were post-operative complication, length of stay and readmission. T-tests were carried out to investigate the risk factors for post-operative complications.

Results: A total of 151 patients was included. Post-operative ileus occurred in 23 cases (15.2%). Post-operative complications occurred in 25 cases (16.6%). The mean post-operative length of stay was 4.19 days. 27 cases (17.9%) readmitted within 30 days after operation. This study failed to identify any risk factor for development of post-operative ileus or complication.

Conclusion: Closure of ileostomy after elective low anterior resection for rectal cancer is associated with high rate of post-operative ileus and complications.

P15

Retrospective review of predictive factors of underestimated invasiveness in patients with ductal carcinoma in situ of the breast on percutaneous core biopsy

RKW Hung, SH Law, CK Kong and SL Leung

Background and objective: Improved diagnostic breast imaging has increased the diagnosis rate of ductal carcinoma in situ (DCIS) which now accounts for almost 30% of newly diagnosed breast cancers. However, up to 44% of cases will be upstaged to invasive carcinoma after surgical excision due to the highly targeted nature of core needle biopsy. This will subject the patient for another operation for the staging of the axilla. The aim of this study is to review and identify possible predictive factors of upstaging ductal carcinoma in situ to invasive carcinoma after surgical excision to avoid additional risk of general anaesthesia.

Material and methods: We retrospectively analyzed 89 patients diagnosed to have ductal carcinoma in situ of the breast from 2010 to 2015. The association between post-operative upstaging to invasive carcinoma and clinical, radiological and pathological variables were reviewed

Result: Tumor grading, DCIS subtypes and clinically palpable lesion were found to be associated with post-operative upstaging of the disease by using univariate analysis. While age, mammographic or ultrasonic size of the tumor showed no statistical significance. However, when the factors are compared with multivariate analysis, tumor grading is the only statistically significant factor to predict the presence of invasive component of ductal carcinoma in situ of the breast.

Conclusion: Tumor grading is the most important factor to predict the presence of invasive component in patients diagnosed to have ductal carcinoma in situ of the breast.
situation of the breast preoperatively by core needle biopsy

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P16

Analysis of factors influencing surgical choices of breast cancer patients in Mainland

J Wang, Z Yin, R Chen, L Zhang and X Zha
Department of breast surgery, the first affiliated hospital with Nanjing medical university

Aim: For operable breast cancer, breast surgeries include mastectomy and lumpectomy (followed by radiotherapy), while axillary options are sentinel lymph node biopsy (SLNB) and axillary lymph node dissection (ALND). In real world, patients’ choices are influenced by tumor characteristics, as well as social and psychological factors.

Methods: From April 2015 to June 2016, 138 operable invasive breast cancer patients received one-to-one interviews before surgery. Interviews focused on their considerations behind their surgical choices.

Results: In regards to breast surgeries, 64.5% chose mastectomy while 29.0% chose lumpectomy, and 6.5% chose mastectomy + reconstruction. 14 patients who could choose lumpectomy finally chose mastectomy, reasons including fear of recurrence, radiotherapy, etc.. 6 patients who could choose mastectomy + reconstruction but chose mastectomy only for fear of breast implant, family members’ opinion, and for fear of another surgery.

For axillary surgeries, 32.6% finally chose ALND and 67.4% chose SLNB. All 15 choosing ALND rather than SLNB were due to the concern of increased recurrent risk. Among 93 patients choosing SLNB, 88 stressed the fear of complications of ALND (e.g. lymphedema, dysfunction and sensation disturbance), 5 believing SLNB could keep their lymph nodes as for better immunity.

Conclusion: Patients’ choice of surgical procedures may be different from surgeon’s. In addition to tumor characteristics, many social and psychological factors exert an influence. However, surgeons still have the responsibility to guide patients in making properer and safer decisions.

P17

Outcomes of hepatectomy following down-staging trans-arterial chemoembolization for advanced hepatocellular carcinoma

HT Lok, CCN Chong, SYS Cheung, J Wong and PBS Lai
Department of Surgery, Prince of Wales Hospital, The Chinese University of HongKong, Shatin, Hong Kong

Aim: To evaluate the outcomes of hepatectomy following down-staging trans-arterial chemoemoblization for advanced hepatocellular carcinoma (HCC) which was considered unresectable at presentation.

Methods: Retrospective analysis was conducted on consecutive patients undergoing hepatectomy following trans-arterial chemoemobilization for hepatocellular carcinoma in 2004–2016

Results: Forty eight patients (41 males) with median age of 56 (range 34 – 78) underwent hepatectomy following TACE. 27 patients had single tumor whereas as 21 patients had multifocal tumors, among which 8 patients had bi-lobed involvement. Unresectability was due to large centrally located tumor (n = 14), multi-focality (n = 6) and borderline liver function (n = 3). Median number of trans-arterial session received before hepatectomy was 2 (range 1 – 5). Trans-arterial therapy was cisplatin based (n = 42), doxorubicin based (n = 5) and lipiodol-ethanol mixture (n = 1). 32 patients had portal vein embolization. Resection margin was involved in one patient. Two patients suffered complication requiring re-operation and one 30-day mortality was recorded. With a median follow up duration of 33.1 months, median overall survival was 107.2 months whereas median recurrence-free survival was 52.7 months. Large central tumor (hazard ratio: 2.748, 95% confidence interval: 1.002 – 7.534) and multifocality (hazard ratio: 4.150, 95% confidence interval: 1.199 – 14.366) were found to be associated with worse overall survival in multivariate cox regression analysis. Drop in serum alphafetal protein and degree of tumor shrinkage after TACE, numbers of TACE sessions before hepatectomy were not associated with overall survival.
**Conclusion:** TACE is effective in down-staging advanced hepatocellular carcinoma to render the tumor amendable to curative surgery with good long-term survival in selected patients.

**P18**

**Improved pain control by high volume pre-peritoneal local anaesthesia in elective colorectal cancer surgery**

SC Tam, YW Wong, SY Leung, CYJ Lam and LC Chong

*Department of Surgery, Tseung Kwan O Hospital, 2 Po Ning Lane, Hang Hau, Tseung Kwan O, New Territories, Hong Kong*

**Aim:** Pain after colorectal operations hinders recovery and mobilization, leading to complications and prolonged hospital stay. Pre-peritoneal continuous analgesics infusion provides effective pain control, but may lead to catheter-related complications. We aim to review the feasibility and efficacy of intra-operative pre-peritoneal high volume diluted local anaesthetics injection as an alternative.

**Methods:** A retrospective review of patients underwent elective colorectal cancer surgery in our unit from October 2014 to November 2015. Patients receiving conventional LA to skin or high volume pre-peritoneal LA were compared in terms of pain score, analgesics requirement, mobility, and the length of hospital stay. Time to return of bowel function and resumption of diet, and post-operative complications were also compared.

**Results:** 59 patients were included. 52.5% received conventional LA, while 47.5% received high volume pre-peritoneal LA. There is no significant difference in age, gender, operation type and laparoscopic rate between the two groups. High volume pre-peritoneal LA was associated with lower median pain score on Day 1 (1.5 vs 3, P < 0.05), earlier wean off PCA (Day 1.5 vs 2.5, P < 0.05), earlier return of flatus (Day 2.5 vs 3, P < 0.05), earlier tolerance to fluid diet (Day 2 vs day 4, P < 0.05) and soft diet (Day 3 vs 5, P < 0.05). There is no significant difference in wound complication and collection rate between the groups.

**Conclusion:** High volume pre-peritoneal local anaesthesia in elective colorectal cancer surgery is shown to have better early pain control leading to early weaning of PCA. It is a safe alternative.

**P19**

**Short-term results of extralevator abdominoperineal excision for low rectal cancer: A single centre experience**

CK Tang, YW Wong and CM Poon

**Objective:** to evaluate the short-term results of extra-levator abdominoperineal excision (ELAPE). **Background:** ELAPE was introduced in 2007, with an aim to reduce intra-operative bowel perforation rate and circumferential margin positivity (CRM+). Current evidence had shown conflicting results regarding its benefit over conventional APE.

**Method:** Data on all ELAPEs performed from Feb 2010 to Dec 2014 were extracted from electronic records in Tuen Mun Hospital, Hong Kong. The data was evaluated for patient’s demographics, tumour characteristics, pathological characteristics and clinical outcomes.

**Results:** A total of 28 patients were included. The mean operative time was 288.7 minutes. The mean hospital stay was 11.2 days. ELAPE was associated with an intra-operative perforation rate of 0 (n = 0). The rate of CRM+ was 10.7% (n = 3) and the rate of perineal wound complication was 32.1% (n = 9). No patient developed isolated local recurrence (mean follow-up length 31.6 months).

**Conclusion:** The short-term results of ELAPE of low rectal cancer showed that ELAPE was safe. It demonstrated a low rate of intra-operative perforation and local recurrence.

**P20**

**Transaortic approach for transcatheter aortic valve implantation (TAVI) in patients with severe aortic stenosis; first case series in Hong Kong**

SCY Chow,1 RHL Wong,1 GSH Cheung,2 APW Lee,2 E Wu,3 IYP Wan,1 S Wan1 and MJ Underwood1

1Division of Cardiothoracic Surgery, Department of Surgery
2Division of Cardiology, Department of Medicine, The Chinese University of Hong Kong, Prince of Wales Hospital, 30–32 Ngan Shing Street, Shatin, New Territories Hong Kong

**Aim:** Transcatheter aortic valve implantation (TAVI) has established itself as the primary treatment for patients with severe degenerative aortic stenosis who are at high or prohibitive risk for surgery. Transaortic TAVI provides an alternative access for patients with severe ilio-femoral disease and is well described in the western population. Studies in Asian population is
lacking. We report the first case series of transaortic TAVI in Hong Kong.

**Method:** From 2015 to 2016, we enrolled 5 patients who underwent transaortic TAVI in our center. All patients had symptomatic severe degenerative aortic stenosis, and were considered by a multidisciplinary HEART team to be of prohibitive risk for surgical aortic valve replacement as well as unsuitable for transfemoral TAVI.

**Results:** The mean age was 78.4 +/- 3.9 years and 3 patients were male. Four patients had parasternal incision and one patients had mini-sternotomy performed under general anesthesia with Evolut R self expandable Corevalve implanted. Transaortic TAVI with Evolut R Corevalve was successfully performed in all patients. There was no mortality within 30 days of procedure and 1 cardiovascular related mortality at 5 months post operation. Peak to peak gradient immediately post implantation was 0.4 +/- 0.8 mmHg. No patient had residual para-valvular regurgitation of more than mild in severity. One patient developed post-operative bleeding from pleural tapping site requiring re-sternotomy for hemostasis.

**Conclusion:** In our early experience with transaortic TAVI, procedural success was achieved in all patients without mortality at 30 days post procedure.

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**P21**

**Sphincter preservation in low rectal cancers: incidence and risk factors for failure**

JCK Mak, CC Foo, R Wei and WL Law

*Division of Colorectal Surgery, Department of Surgery, Queen Mary Hospital, University of Hong Kong, Hong Kong*

**Aim:** Advances in surgical techniques and changes in the treatment of rectal cancer have led to a decline in abdominal perineal resection rates, with an increase in sphincter preservation operations. The aim of this study is to evaluate the cumulative incidence and risk factors associated with permanent stoma in patients undergoing sphincter-preserving resection of distal rectal cancer.

**Method:** From 2000 to 2014, patients who underwent sphincter preserving low anterior resection for distal rectal cancer (within 5 cm from the anal verge) were included. Data was retrieved from a prospectively collected database. The occurrence of a permanent stoma over time and its risk factors were investigated by using a Cox proportional hazards regression model.

**Results:** One hundred and ninety four patients were included over the study period, with 46 patients ending up with a permanent stoma. The mean follow up period was 51 months (range (2.3-190). The cumulative permanent stoma incidence was 23.7 percent. Anastomatic related complications, disease progression and the patient’s wish were the main reasons for a permanent stoma. Multivariate analysis showed that the independent risk factors for permanent stoma were local recurrence [hazard ratio (HR), 3.115; 95% confidence interval (CI), 1.928-5.033; p < 0.001], clinical anastomotic leakage (HR, 2.92; 95% CI, 1.316-6.477; p = 0.008), neoadjuvant chemoradiation (HR, 2.282; 95% CI, 1.155-4.508; p = 0.018), hand sewn anastomosis (HR, 2.95; 95% CI, 1.519-5.729; p = 0.001), positive lymph node status (HR, 2.297; 95% CI, 1.232-4.284; p = 0.009) and male gender (HR, 3.048; 95% CI, 1.305-7.117; p = 0.005).

**Conclusion:** Clinical anastomotic leakage, local recurrence, neoadjuvant therapy, nodal positivity are identified as risk factors for a permanent stoma and should be taken into consideration for sphincter-preserving surgery.

**Keywords:** Permanent stoma, rectal cancer; sphincter-preserving low anterior resection; risk factors; anastomotic leakage

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**P22**

**Impact of pre-operative carbohydrate loading on blood glucose profile in colorectal surgery**

KY Lee, HY Lo, PK Chan, CK Tang, TK Fung, TY Tse, LF Hung, CS Wong, CM Poon and YW Wong

*Department of Surgery, Tuen Mun Hospital, 23 Tsing Chung Koon Road, Tuen Mun, New Territories, Hong Kong*

**Aim:** Carbohydrate loading before surgery was shown to attenuate insulin resistance, which may increase operative morbidities and delay recovery. Nevertheless, it may induce uncontrolled hyperglycemia leading to adverse outcome. This study aimed to observe the impact of carbohydrate loading on pre-operative blood glucose level and the need of glucose control.

**Methods:** From May 2015 to May 2016, consecutive patients undergoing elective major colorectal operations in single centre were given a carbohydrate-rich drink, 400 ml of Nutricia Polycal™ 12.5%, the night before(at 10 pm) and 3 hours before operations. Patients with insulin-dependent Diabetes Mellitus(DM) were excluded. Spot glucose(H’stix) levels at one and two hours after each carbohydrate load were recorded. In addition, for DM patients, H’stix levels
were measured every four hours, and if it exceeds 12 mmol/L at any time, dextrose-potassium-insulin (DKI) drip would be started.

**Results:** A total of 214 patients received pre-operative carbohydrate loading. The average age was 64.7. The Male to Female ratio was 141:73.

For non-DM patients, the median H’stix was 8.5 (3.9-12.7) at first hour and 8.7(3.9-15.7) at second hour after first carbohydrate loading, and 9.4(4.1-17.2) and 9.7(3.3-16.2) respectively after second carbohydrate loading.

For DM patients, the median H’stix was 10.4(2.8-18.4) at first hour and 11.9(4.9-19.4) at second hour after first carbohydrate loading, and 9(2.3-19.6) and 10.8(4-17.8) respectively after second carbohydrate loading. At 3 am between two carbohydrate loadings, the median H’stix was 5.9(3.3-15.4).

Among all 33 DM patients, 13 patients(39%) required DKI drip to control glucose levels.

**Conclusion:** Pre-operative carbohydrate loading induced significant hyperglycemia in more than one-third DM patients that required intervention for glucose control. Close H’stix monitoring is essential in DM patients after carbohydrate loading.

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**P23**

**Risk factors of adverse surgical outcome in the elderly**

KPT Fung, YS Cheung and PBS Lai
*Department of Surgery, Prince of Wales Hospital, The Chinese University of Hong Kong*

**Aim:** This study aimed to identify risk factors associated with 30-day morbidity in elderly patients undergoing elective major and ultra-major surgery in Hong Kong.

**Methods:** Retrospective cohort study was performed using data from the Surgical Outcome Monitoring and Improvement Program (SOMIP) of Prince of Wales Hospital from 1 July 2012 to 30 June 2015. Patients aged 65 years old or above who underwent elective major and ultra-major operations by general surgery, urology and plastic teams were included. The association between perioperative risk factors and 30-day morbidity was analysed using chi-square test and logistic regression.

**Results:** 1938 patients were included in the study. The average age of patients was 74 years old (range = 65–102) with male preponderance (M = 1452, F = 486). There were 998 general surgery patients (51.5%), 818 urology patients (42.2%) and 122 plastic surgery patients (6.3%). 363 patients (18.7%) developed complications at 30-day. Systemic sepsis (n = 118) was the commonest complication, followed by renal events (n = 1115) and surgical site infection (n = 96). Operation time greater than 4 hours, use of general anesthesia, ultra-major operation and non-overweight patients were significant independent factors for 30-day post-operative morbidity.

**Conclusion:** Patients receiving ultra-major operation, procedure under general anesthesia and prolonged operation more than 4 hours were at increased risk of post-operative complications. More vigilant pre-operative assessment and perioperative care would be necessary in these patients to prevent post-operative morbidity and mortality. Overweight patients had paradoxically reduced risk of post-operative morbidity. Further evaluation would be required to explain this phenomenon.

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**P24**

**Predictors of invasion and sentinel lymph node metastasis in preoperatively core-biopsy diagnosed ductal carcinoma in-situ**

ML Chu,1 WF Tsang2 and HY Yuen3
1 Resident Specialist, Department of Surgery, Pok Oi Hospital
2 APN, Department of Surgery, Pok Oi Hospital
3 Consultant, Department of Surgery, Pok Oi Hospital

**Background:** Ductal carcinoma in-situ (DCIS) diagnosed preoperatively had about 25% of upstage in final pathology. Routine use of sentinel lymph node for all patients with preoperatively diagnosed DCIS is controversial.

**Aim:** This study reviews local data from a regional public hospital to identify high risk factors that may predict invasive disease in biopsy proven DCIS

**Method:** Patients who received definitive surgery for core biopsy proven DCIS from June 2010 to December 2015 were identified using Computer Management System. The relationship between preoperative patient factors, radiology findings, preoperative pathological features and final pathology were examined.

**Results:** There were 103 patients identified in the study cohort. 49 (47.6%) had upstaging of pathology, 62 received sentinel lymph node (SLN) biopsy and of which 4 had sentinel lymph node metastasis. Upstaging of pathology is only predicted by palpability (OR 4.6, 95%CI 1.99-10.61). There was no predictor identified for SLN metastasis.

**Conclusion:** Palpability is the only predicting factor identified for upstage of preoperative diagnosed ductal carcinoma in-situ.
DCIS. Due to a high upstaging rate at 71%, sentinel lymph node biopsy should be offered to preoperative diagnosed DCIS which is palpable.

P25

10-Year experience on adrenocortical carcinoma in New Territories West Cluster (NTWC)

KY Ng, LF Hung and MCM Poon
Department of Surgery, Tuen Mun Hospital, Tuen Mun, Hong Kong

Aim: Adrenocortical carcinoma (ACC) is a rare malignancy. We here reported the incidence and prognosis of ACC in Chinese population.

Methods: This was a retrospective cohort of adrenalectomy performed in New Territories West Cluster (Tuen Mun Hospital and Pok Oi Hospital) between July 2006 and June 2016. Patients' demographic data, tumour characteristics, operative details and histopathology were collected from patients' records. Adjuvant treatment, recurrence, reoperation and mortality in ACC patients were collected. Data were analyzed using SPSS version 22.

Results: 137 patients including 80 women (58.4%) and 57 men (41.6%) underwent adrenalectomy for adrenal tumours. The median age was 51.4 years (range: 13–79 years). The commonest histology was adrenocortical adenoma (72.3%), followed by pheochromocytoma (11.7%). The rest included 4 metastatic tumour to adrenal gland, 4 adrenocortical carcinoma, and 14 other benign pathologies like myelolipoma or cyst.

There were 4 ACC patients including 3 female and 1 male. The median age was 43 years (range: 19–70 years). 3 were hormonally active, presenting with Cushing’s syndrome and 3 were located on left side. The median tumour size was 12.5 cm. 2 were stage II and another 2 were stage III (ENSAT classification 2008). Clear margin was achieved in 1 patient. 2 had close or involved resection margin. Resection margin was not mentioned in 1 patient.

All patients received adjuvant therapy, with 3 patients receiving mitotane and one receiving metyrapone. All patients experienced local recurrence and 3 patients had coexisting distant metastasis (lung = 2, liver = 3). The median time till recurrence was 13 months (95% CI = 0.8–25.2 months). 2 patients underwent reoperations (excision of local recurrence = 2, liver resection = 1). 1 patient will have reoperation arranged later and the remaining patient with local and distant recurrence passed away 7 months postoperatively without reoperation.

Conclusion: ACC is an extremely rare adrenal tumor which carries poor prognosis with high chance of recurrence.

P26

Retrospective study of low anterior resection syndrome after anal sphincter preserving surgery for carcinoma

F Liu, P Guo, ZD Gao, ZL Shen, S Wang and YJ Ye
Department of Gastrointestinal Surgery, Peking University People’s Hospital, 11 Xizhimen Nan Street, Xicheng District, Beijing, P. R.CHINA100044

Aim: The aim of this study was to investigate symptoms and mechanism of bowel dysfunction of patients who received anal sphincter preserving surgery for rectal cancer.

Methods: Bowel function was assessed using a validated score questionnaire developed for low anterior resection syndrome (LARS). Patients’ data were then grouped by this score system. Assessment of demographic and clinic features were carried out among each group.

Results: A total of 100 patients completed the LARS score questionnaire. 37% of patients had a “No LARS” rank, with 20% for “Minor LARS” and 43% for “Major LARS”. Radiotherapy, tumor position and distance from anastomotic site to anal edge significantly affect bowel function after anterior resection. Radiotherapy and lower tumor level (≤5 cm) are independent risk factors of major LARS.

Conclusion: LARS is a significant problem found in most of rectal cancer patients after anal sphincter preserving surgery. The Risk of having major LARS increases with radiotherapy and lower tumor level.

Keywords: Rectal cancer, Anal sphincter preserving surgery, bowel dysfunction, low anterior resection syndrome

P27

Outpatient hemithyroidectomy in Hong Kong a safe and feasible option?

EYY Siu, X Lo, TK Tam and HT Leong
Department of Surgery, North District Hospital, HKSAR

Aim: Trend towards ambulatory thyroid surgery has been growing in the past two decades, given its benefits of cost-saving and convenience. Yet most of the evidence comes from North America. The aim of this
study is to determine the safety and feasibility of outpatient hemithyroidectomy in our locality.

**Methods:** All patients with ASA I or II, Age \( \leq 75 \) years, with largest nodule being less than 6 cm were included. Completion thyroidectomy, patients with history of neck surgery or radiation therapy, anticoagulant use, were excluded. All surgeries performed under general anaesthesia by two experienced thyroid surgeons in the North District Hospital (NDH).

**Results:** From 1 December 2013 to 31 October 2015, 57 outpatient hemithyroidectomies were performed. There were 48 females and 9 males with a mean age of 50 years old (Range 21–74). The mean nodule size was 30.5 mm and mean operation time was 78.3 mins (range 50 – 137mins). 44 patients (77.2%) successfully discharged as day cases after a mean observation period of 415.4 mins(range 270 – 566 mins). 13 patients (22.8%) required to be observed overnight. Majority of them stayed for pain, nausea and minor discomforts after general anaesthesia. 2 patients were kept in for post-operative fever and another two stayed for management of drain where intraoperatively found of large (specimen >100gm) thyroid gland. There were no readmission nor major complications including hematoma, recurrent laryngeal nerve palsy and airway compromise. There was no mortality. While comparing the group of successful discharge with the group that needed admission, t-test and chi-square test showed no significant difference (p = 0.05) in age, sex, ASA level, operating time, blood loss, nodular size and pathology.

**Conclusion:** Outpatient hemithyroidectomy is a safe and feasible option in experienced hands. To avoid unnecessary stay, strict patient selection, accurate pre-operative assessment of nodule and thyroid size, perioperative aggressive use of anti-emetic and pain control medications are crucial.

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**P28**

**Percutaneous radiofrequency ablation versus percutaneous microwave ablation for hepatocellular carcinoma**

JK Shum, TP Fung and SW Wong
Division of Hepatobiliary and Pancreatic Surgery, Department of Surgery, United Christian Hospital, Hong Kong

**Aim:** To compare percutaneous radiofrequency ablation (RFA) vs percutaneous microwave ablation (MWA) for hepatocellular carcinoma.

**Methods:** This is a retrospective comparative study involving patients who underwent percutaneous ablation for hepatocellular carcinoma from January 2014 – June 2015. Baseline Characteristics and perioperative outcomes were compared, and patients were followed up with imaging and biochemistry at post-operative 1 month, then 3-monthly for 1 year, then 6-monthly thereafter.

**Results:** 22 patients underwent percutaneous microwave ablation and 44 patients underwent percutaneous radiofrequency ablation. Patients were comparable except patients in MWA had larger tumours (2.59 cm vs 1.86 cm, p < 0.001). Median follow-up was 18 months for RFA patients and 19 months for MWA patients (p = 0.542). Operative times were significantly shorter with MWA (30.3 min vs 43.0 min, p < 0.001). Complication rates (RFA 9.1% vs MWA 4.6%, p = 0.658), complete ablation rates (RFA 93% vs MWA 100%, p = 0.545), and 30-day mortality (RFA 0% vs MWA 0%) were comparable.

Overall survival at 1 year (RFA 95.4% vs MWA 90.0%, p = 0.446) and disease-free survival at 1 year (RFA 69.8% vs MWA 66.6% p = 0.810) were comparable.

**Conclusion:** Percutaneous MWA for hepatocellular carcinoma offer comparable outcomes when compared to percutaneous RFA, with shorter operative times.

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**P29**

**Selective use of water soluble contrast enema examination of the integrity of low pelvic anastomosis prior to closure of defunctioning stoma is feasible**

ASY Kok, HKM Joeng, CKL Yeung and LLL Chan
Colorectal Team, Department of Surgery, United Christian Hospital, 130 Hip Wo Street, Kwun Tong

**Aim:** Loop ileostomy or colostomy are frequently constructed to divert low pelvic anastomosis. Traditionally, a contrast enema is performed to evaluate the integrity of anastomosis prior to stoma closure, regardless of clinical examination. Previous study showed controversy in the necessity of routine use of contrast enema. The purpose of this study is to evaluate selective use of contrast enema prior to stoma closure and its impact on patient management in patients with a low pelvic anastomosis.

**Methods:** This is a retrospective review of a prospective database of 346 patients from 1996–2016. All patients with low pelvic anastomosis with diverting ileostomy or colostomy and subsequent closure were included. Radiological examination of the anastomosis was only performed in patients with neoadjuvant
or adjuvant therapy, clinical sign of leakage, locally advanced tumor or complications in first operation. Radiological imaging was reviewed by an independent radiologist. All patients had per-rectal examination to confirm patency of anastomosis before closure.

**Results:** 346 patients (Male 215/Female 131) with mean age of 73 were included. All of them had carcinoma of rectum. 69% had laparoscopic surgery. 92% had total mesorectal excision & 8% had low anterior resection. 99% & 1% had ileostomy & colostomy respectively. 2% had clinical leakage. 65/346 (19%) patients had contrast enema before stoma closure with 12% indicated for leakage, 18% & 28% for neoadjuvant & adjuvant therapy. 6% (4/65) had radiological leakage which were all known to have leakage clinically. Resolution of leak was confirmed by follow-up contrast enema. Mean time from operation to closure was 4.5 months. There was no leakage after stoma closure.

**Conclusion:** All patients with anastomotic leakage were diagnosed clinically and the diagnosis was confirmed by selective radiography. Selective use of contrast enema to evaluate low pelvic anastomosis save time, money and patient comfort.

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**P30**

A review of lobular carcinoma in-situ (LCIS) in breast patients in Queen Mary Hospital

BHK Mark,¹ A Kwong² and TWH Shek³

¹Department of Surgery Breast Division, Queen Mary Hospital, HKSAR
²Department of Surgery Breast Division, Queen Mary Hospital, HKSAR
³Department of Pathology, Queen Mary Hospital, HKSAR

**Aim:** LCIS is an uncommon but important breast condition associated with increased risk of breast cancer. It is often clinically occult with various imaging features and pathological findings. It also poses difficulty in management due to its sparsity.

**Methods:** Clinicopathological features of 13 patients with LCIS in excision specimen between January 2005 to January 2016 were reviewed after exclusion of 173 patients with co-existent invasive or in-situ carcinoma (DCIS).

**Results:** 11 (84.6%) patients presented incidentally during screening or workup for mastalgia or contralateral mass while 2 (15.4%) presented with a palpable mass. 5 (38.5%) had mammographic findings of microcalcifications while 10 (76.9%) had ultrasound findings of hypoechoic lesion in 6 (46.2%), having lobulated border in 7 (53.8%) and showing increased vascularity in 4 (30.8%). MRI was done on 3 patients and 1 (7.7%) showed type II/III enhancement curve. Only 5 (38.5%) showed LCIS in core biopsy. 1 showed pleomorphic LCIS with no microcalcifications on MMG. Regarding the management, 11 patients opted for surveillance, 1 chemoprevention and 1 mastectomy. With a median follow up of 28 months (range: 6–66 months), 1 (7.7%) developed DCIS 12 months after excision of LCIS and remained disease free at 38 months. Others do not have cancer development or LCIS recurrence.

**Conclusion:** LCIS is clinically occult and mammographic finding of microcalcifications is not a reliable feature. Ultrasound and MRI may show suspicious features. Core biopsy may not reveal the LCIS component. We recommend excision for definitive diagnosis to guide further management in view of its risk of cancer.

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**P31**

Improved outcome in management of traumatic liver injury: experience from a single centre

EYY Siu,¹ KF Lee,¹ CCN Chong,² JHH Yeung,² NK Cheung,¹ YS Cheung,¹ J Wong¹ and PBS Lai¹

¹Division of Hepatobiliary & Pancreatic Surgery, Department of Surgery, Prince of Wales Hospital, Hong Kong SAR, China
²Trauma and Emergency Centre, Prince of Wales Hospital, Hong Kong SAR, China

**Introduction:** Liver trauma remains a major cause of death for trauma patients. To achieve better survival, non-operative management (NOM) and damage control surgery (DCS) are now recommended for traumatic liver injury. This study aims to review the outcomes of patients suffering from liver trauma and to determine whether change in outcome is related to NOM and DCS.

**Methods:** This is a retrospective cohort study from a single centre. All adult patients suffering from liver trauma admitted between 1st January 2001 and 31st December 2014 were included. The main outcome measured were 90-day mortality and length of hospital stay. The outcomes were compared between two equal consecutive periods: period A (year 2001–2007) and period B (year 2008–2014).

**Results:** There were 116 patients with a mean age of 38.1 years and male predominance (61.2%). Around 57% of patients suffered from grade III or above liver injury. The mean Injury Severity Score (ISS) was 32.3. The 90-day mortality was 20.7%. The mean length of
hospital stay was 16.6 days. In period B, the 90-day mortality was significantly lowered (6/56 vs. 18/60, P = 0.010) with less liver operation (13/56 vs. 26/60, P = 0.022) and more hepatic angiography+/−embolization (7/56 vs. 0/60, P = 0.005). There was no difference in hospital stay. The proportion of DCS was similar but more hepatectomies were performed in period B (4/13 vs. 0/26, P = 0.009). Multivariate analysis revealed ISS grade and liver operation were predictors for 90-day mortality.

Conclusions: A reduced mortality was seen in traumatic liver injury accomplished by increased NOM but not DCS.

Keywords: Liver injury, Non-operative management, Damage control surgery, Hepatectomy

P32

Surgical outcomes of robotic-assisted laparoscopic radical prostatectomy (RALRP) on chinese prostate cancer patients: five-year experience from a single tertiary center in Hong Kong

TCT Lai, JKW Wong, CF Tsang, CH Ip and MK Yiu
Division of Urology, Department of Surgery, LKS Faculty of Medicine, The University of Hong Kong, Queen Mary Hospital, Hong Kong SAR, China

Aim: To assess surgical outcome of RaLRP performed by a single consultant urologist in our centre; in addition to identify factors affecting operative outcomes.

Methods: We reviewed our prospectively-collected data of RaLRP performed on Chinese patients between September 2011 and October 2015. Patients with previous radiotherapy were excluded. Outcomes studied included: rate of positive surgical margin, post-operative complications, 12-month continence rate, and 12-month success of vaginal penetration.

Results: 120 patients were reviewed in our study. 1 patient (0.8%) had complication of Clavien grade 3b. 29 (24%) patients had positive margin, 16% in T2 disease and 54% in T3 disease, respectively. T3 tumours were significantly associated with positive margin (p = .00). At 12 months, the continence rate (0–1 pad use per day) was 94%, and was not associated with age (p = .17), weight of prostate (p = .60) or nerve-sparing (ns) technique (p = .48). 48 (40%) patients was sexually active and could perform unassisted sexual intercourse before operation. 28 of them underwent bilateral ns-RaLRP, 6 with unilateral ns-RaLRP, and 14 with non-ns-RaLRP. At 12 months, 0%, 33% and 93% patients had successful penetration for non-ns, unilateral ns and bilateral ns-RaLRP, respectively; rate of penetration success was associated with ns approach (p = .00) but not with age (p = .05), pre-operative IIEF-5 (p = .20) or use of PDE5-i. (p = .14).

Conclusions: RaLRP was safe with low complication rates. Majority of patients had preserved continence rate, and potency rate with bilateral ns-RaLRP. The result of our single-surgeon series was comparable with international series.

P33

Comparison of surgery and radiotherapy for treatment of tongue cancer

RCW Wong and EYL Lai
Department of Surgery, 30 Gascoigne Road, Queen Elizabeth Hospital

Background: Surgery and radiotherapy are the choices of single modality treatment in tongue cancer.

Aim: The aim of this study is to compare the outcome of early T stage tongue cancer when primarily treated with surgery or radiotherapy.

Null hypothesis of study: There is no difference between surgery and radiotherapy in terms of local recurrence, mortality, morbidity and nodal recurrence.

Method: We gathered data of patients with clinical stage T1 and T2, N0-N2 squamous cell carcinoma of tongue treated in Queen Elizabeth Hospital from February 2004 to November 2015. 139 patients were identified and were divided according to the primary treatment received, radiotherapy (n = 48) and surgery (n = 91). We reviewed the demographic, clinical, pathological, treatment, and survival data. Local recurrence, morbidity, nodal recurrence were analyzed with Fisher’s exact test. Overall and disease specific survival were estimated with Kaplan Meier analysis.

Result: Significantly lower local recurrence rate was observed in surgery group versus radiotherapy group (12% vs 33%, p < 0.05). There was no significant difference in the demographic between the two groups. No significant difference was observed between the two groups in terms of survival, nodal recurrence and morbidity.

Conclusion: We conclude that early T stage tongue cancer treated with surgery may have lower rate of local recurrence when compared with radiotherapy. Survival difference is not observed in this study. We suggest both disease factors and patient’s preference should be considered with multidisciplinary approach in deciding treatment modality.
**P34**

Management approach to meckel’s diverticulum: a 22-year review on meckel’s diverticulum

YP Wong, KF Wong and SK Leung

Department of Surgery, Tuen Mun Hospital, New Territories West Cluster, HKSAR

**Aim:** Meckel’s diverticulum is the commonest congenital malformation of gastrointestinal tract. This study aims to review the local epidemiology, presentation, pathology and derive a possible treatment strategy.

**Methods:** Patients with intra-operative diagnosis of Meckel’s diverticulum from 1st July 1994 to 31st May 2016 in Tuen Mun hospital in Hong Kong were retrospectively reviewed.

**Results:** A total of 85 cases were reviewed. It remained an incidental finding in 49.4% of patients. The symptomatic cases presented with diverticulitis (27.1%), gastrointestinal bleeding (GIB) (12.9%), adhesion with intestinal obstruction (7.1%), volvulus (2.4%), and perforated ulcer (1.2%). Among the symptomatic group (=43), the gender ratio was 7.6 male/female, and median age was 23. All symptomatic patients underwent surgical resection. Intestinal mucosa was the commonest pathology (55.8%), followed by gastric mucosa (39.5%), and pancreatic mucosa (9.3%). Seven patients had Meckel’s scan performed as work up for GIB and all showed positive finding. Presence of gastric mucosa was associated with complications ($p = 0.006$), in particular GIB ($p < 0.05$), but not ulcer ($p = 0.259$) nor inflammation ($p = 0.592$). It didn’t predict mortality ($p = 0.575$) nor morbidity ($p = 0.417$). Age was a predictive factor for complications with odds ratio 0.964 (Confidence Interval 0.944-0.984; $p$ value 0.001), in particular in cases of GIB (Odds ratio 0.955; CI 0.919-0.993; $p = 0.02$). The presence of complications was not associated with gender ($p = 0.117$).

**Conclusion:** Younger age and presence of gastric mucosa are associated with higher complications of Meckel’s diverticulum. Surgical treatment should be considered in these groups. Meckel’s scan may help in identifying presence of gastric mucosa.

**P35**

Relationship of PD-L1 on CTC and clinical pathological features of breast cancer patients

X Wang, Q Sun, Y Xu and J Guan

Breast Surgery Department, Chinese Academy of Medical Sciences & Peking Union Medical College,

Peking Union Medical College and Hospital; No.3dongdan, dongcheng district, Peking Union Medical College Hospital, Beijing, China;

**Aim:** The prognosis of breast cancer is from CTC. Now, PD-L1 was found to be related with overall survival. However, there is only one article about PD-L1 expression on CTC and lacking of PD-L1 on CTC and clinical pathological features of breast cancer. To further investigate this relationship, we conducted this research.

**Methods:** We analyzed CTC and PD-L1 mRNA expression on CTC in 10 metastatic breast cancer patients and 10 primary breast cancer patients. Analyzed the relationship between clinical pathological features and PD-L1 expression on CTC, through overall and split chi square test.

**Results:** In the total 20 patients, 15 have more than 1 CTC in 7.5 ml peripheral blood. Among the 15 patients, each one has at least 1 CTC showing PD-L1. We found PD-L1 on CTC is related to the tumor size ($p = 0.012$) lymph node status ($p = 0.001$) and PR status ($p = 0.037$). In tumor size group, we can see statistical difference between T2 and T3 ($p = 0.003$), while in node status group statistical difference can be found in N1 vs N3 ($p = 0.000$) and N2 vs N3 ($p = 0.015$). However, we didn’t see difference of PD-L1 on CTC in metastatic and non metastatic patients ($p = 0.418$).

**Conclusion:** PD-L1 on CTC do relate to clinical pathological features. However, studies have a sufficient sample size to validate the results obtained is needed. We use mRNA probe hybridization, which is more sensitive than IHC and is independent of cell surface expression of PD-L1. And we should establish a standardized PD-L1 expression measure.

**Keywords:** CTC (circulating tumor cell), PD-L1(ligand for programmed death 1), OS (overall survival), PR (Progesterone Receptor)

**P36**

Prognostic role of lymph node density in squamous cell carcinoma of tongue: predictability of the modified tnm staging system

WYW Kwan,1 KPC Tsui,1 CNS Ha2 and TL Chow1

1Division of Head and Neck Surgery, Department of Surgery, United Christian Hospital
2Division of Quality and Safety, Kowloon East Cluster

**Aims:** The lymph node density (LND)-based TNM staging, proposed by the International Consortium for Outcome Research (ICOR), was based on a heterogeneous cohort with oral squamous cell carcinoma
P37

False lumen occlusion in chronic aortic dissection: the first experience of candy-plug technique in Hong Kong

JYK Ho,1 SCY Chow,1 PSY Yu,1 MWT Kwok,1 SCH Yu1,2 MJ Underwood1 and RHL Wong1
1Division of Cardiothoracic Surgery, Department of Surgery, Prince of Wales Hospital, The Chinese University of Hong Kong, Hong Kong SAR
2Department of Imaging and Interventional Radiology, The Chinese University of Hong Kong, Prince of Wales Hospital, Hong Kong SAR

Aim: The role of Thoracic Aortic Endovascular Repair (TEVAR) in inducing aortic remodeling in cases of chronic aortic dissection remained controversial. Despite proximal tear control, large re-entry distal communication between true and false lumen would result in significant false lumen backflow, from which retains the risk of rupture and mortality.

This is to illustrate initial experience of the Candy-plug technique with custom made false lumen occlusion device in Hong Kong.

Methods: Patients with chronic dissection and enlarging false lumen aneurysms despite previous TEVAR were recruited. Custom made Candy-plug devices for false lumen occlusion were performed in June 2016. Perioperative parameters and computer tomography were reviewed.

Results: Two elective patients (mean age: 49) with previous TEVAR for descending aortic dissections were recruited. Residual chronic dissection with significant false lumen backflow and enlarging thoracic aortic aneurysm was evident in both patients. Mean operative time and hospital stay were 203 min and 8 days respectively. Zero percent of 30-days mortality and permanent spinal cord injury recorded. Early follow-up imaging showed decreasing false lumen backflow and increasing false lumen thrombosis in both patients. There was no significant endoleak.

Conclusion: This is the first experience of Candy-plug technique in Hong Kong. We have demonstrated its safety and feasibility for false lumen occlusion. It tackles false lumen aneurysm through controlling false lumen backflow and promoting false lumen thrombosis. Further study and follow up is warranted to evaluate its impact on chronic dissections in terms of survival and disease progression.

P38

The utility of routine preoperative chest computerized tomography in pulmonary staging of colorectal cancer and its impact on treatment decision and outcome.

TKS Chan, SY Kwok, CCJ Wong, MP Chow and YYP Lau
Colorectal division, Department of Surgery, Kwong Wah Hospital, Hong Kong

Aim: Colorectal cancer is the most common malignancies in Hong Kong, with 4769 new cases diagnosed in 2013. Up to 10% of patients may have pulmonary metastasis on presentation. Pulmonary staging has traditionally been carried out by plain chest X-rays (CXR), but chest computerized tomography (CT) is now being performed intensively for this purpose. Although there are clinical guidelines recommend the routine use of preoperative chest CT but its use is still controversial. The aim of this study is to see if the routine use of preoperative chest CT would alter the treatment decision and outcome.
Methods: This is a retrospective study, patients with newly diagnosed colorectal cancer with both preoperative CXR and chest CT performed as pulmonary staging were included from April 2013 to March 2014. The CXR and chest CT findings concerning pulmonary staging were recorded and compared. The subsequent treatment decision and outcome were studies for those with abnormal CXR or chest CT finding.

Results: There were 123 patients included in the study, 14 patients (11.4%) had abnormal lung lesions on CXR. Only one of them had pulmonary metastasis shown on chest CT. Pulmonary metastasis was excluded by chest CT in the rest of the thirteen patients and all of them had no pulmonary metastasis detected during subsequent follow-up (mean follow-up time = 28.1 months). Three patients (2.4%) had normal CXR but chest CT showed suspected pulmonary metastasis. First patient had positron emission tomography (PET) scan done and pulmonary metastasis was excluded. He underwent surgery and follow-up chest CT did not show pulmonary metastasis. Second patient did not undergo PET scan and proceeded to surgery because the chest CT only showed two 0.4 cm suspected pulmonary nodules. However, the follow-up chest CT showed multiple pulmonary metastases. The last patient refused both PET scan and surgery. Follow-up chest CT showed multiple pulmonary metastases.

Conclusions: Our result did not show routine use of preoperative chest CT can avoid unnecessary surgery to patient with inoperable pulmonary metastasis which is not shown up by CXR. Its use did not alter the treatment decision and outcome.

P39
Usefulness of tumour markers and positron emission tomography (PET) on post-operative surveillance of breast cancer

LCY Chow

Background: The role of tumour markers in postoperative breast cancer surveillance was defined by the American Society of Clinical Oncology in 2007. Currently there is still limited biomarker discovery for monitoring metastasis. With the advances in imaging modalities, we revisited the use of tumour markers in early detection of breast cancer recurrences by correlating its trend with PET scan tumour load detection.

Methods: The clinicopathological data of patients undergoing regular postoperative surveillance by tumour markers and PET scan between January 2005 and December 2010 were reviewed. CEA < 5 ng/ml and Ca 15–3 < 23 U/ml were used as cut-off values. Correlation between tumour markers and PET scan findings were defined by Chi-square test.

Results: 250 patients included. Median CEA and Ca 15–3 levels were 2.2 ng/ml (0.2 – 1763 ng/ml) and 16 U/ml (3.9 – 558 U/ml) respectively. Mean clinical tumour size was 30 mm (0–150 mm) and 55 patients had palpable axillary lymph node (22.2%). When CEA was ≥ 5 ng/ml, recurrence was detected in 61.8% patients on PET scan (p = 0.004) and when Ca 15–3 was ≥23 U/ml, 64.1% patients had positive PET (p < 0.001). The positive predictive values of CEA and CA15-3 were 61.8% and 64.1% respectively.

Conclusions: Both CEA and Ca 15–3 had high sensitivity in detecting metastasis when used with PET scan. The efficacy of these tumour markers as first-line of tools for postoperative surveillance can be re-evaluated. Nonetheless, clinicians should remain vigilant for tumour recurrence in patients with normal tumour marker levels due to its low specificity.

P40
A cut off value of tumor size in prediction of the malignant potential of people with small gastric gists: a single institution retrospective study

C Wang, 1 Z Gao, 1 Q Xue, 2 Z Shen, 1 K Shen, 1 B Liang, 1 Q Xie, 1 K Jiang, 1 J Wang, 2 S Wang 1 and Y Ye 1

1Department of Gastroenterological Surgery, Peking University People’s Hospital, Beijing 100044, PR China
2Department of Gastroenterology & Endoscopy, Peking University People’s Hospital, Beijing 100044, PR China

Objective: This study was designed to establish an optimal cut off value of tumor size in small gastric GISTs for clinical decision.

Methods: This was a retrospective study of all patients diagnosed small gastric GISTs by endoscopic ultrasound (EUS) at a tertiary institution between 2008 and 2014. The size of tumor is less than 2 cm and all patients were followed up by EUS at least twice over a period of 12 months. Response Evaluation in Solid Tumors criteria was set for the gold standard to divided patients into two subgroups (progressive disease and stable disease). Receiver Operating Characteristics curve was utilized in order to identify an optimal size with respect to malignant potential.

Results: A total of 56 small gastric GISTs patients diagnosed by EUS were involved in this retrospective study. During a mean follow-up period of 25 months,
9 (16%) patients were found had significant changes in tumor size and assigned to progress disease group. 47 (84%) patients were assigned to stable disease group. Factors that significantly predicted progress disease included: male, tumor at gastric body, initial diameter. The area under the ROC curve was 0.785 and cut off value of tumor size is 1 cm. Sensitivity, specificity, positive predictive value, negative predictive value and accuracy were 77.8%, 78.7%, 41.2%, 94.9%, 78.6%, respectively.

Conclusions: An initial tumor size larger than 1 cm was association with significant progression. Except tumor size, male and tumor at gastric body were also highly valuable for predicting potential malignant of small gastric GISTs.

P41
Elective colorectal cancer surgery without bowel preparation: experience from a regional hospital
SC Tam, YW Wong, SY Leung, CYJ Lam and LC Chong Department of Surgery, Tseung Kwan O Hospital, 2 Po Ning Lane, Hang Hau, Tseung Kwan O, New Territories, Hong Kong

Aim: Mechanical bowel preparation before colorectal surgery may reduce complications of infection and improve laparoscopic manipulation. However, it may cause discomfort and biochemical disturbance. We aim to review the safety and outcome of patient undergoing elective colorectal cancer surgeries in our centre without bowel preparation.

Methods: Retrospective review of records of patients underwent elective colorectal cancer surgeries in our unit from October 2014 to November 2015. Patient’s characteristics, operative time, blood loss, surgical complications and time to return of bowel function were compared between patients with or without pre-operative mechanical bowel preparation.

Results: 87 consecutive patients were reviewed. 69% (n = 60) had pre-operative bowel preparation. There were no significant differences in age, gender, presence of distant metastases, and use of neoadjuvant chemoradiotherapy. Higher proportion of patients with obstructive lesions were not given pre-operative bowel preparation (44% vs 15%, P < 0.05).

There were no significant differences in rate of successful laparoscopic surgery (78% vs 83%), need for a stoma (26.9% vs 36.7%), operative time (241 min vs 226mins), and blood loss (228 ml vs 290 ml) between the two groups.

Postoperatively, rate of return to normal bowel function and time to resumption of diet were similar.

Incidence of wound complications (11.1% vs 6.7%), intra-abdominal collection (7.4% vs 0%) and anastomotic leakage (3.7% vs 1.7%) had no significant difference.

Conclusion: Elective colorectal cancer surgery without bowel preparation is safe and feasible, giving similar operative and post-operative outcomes. It may avoid discomfort, and the risk of hydration and electrolytes disturbance associated with bowel preparation.

P42
Prognostic significance of regulatory T lymphocytes in patients with hepatocellular carcinoma: a meta-analysis
Y Qian

The current study investigated the prognostic role of regulatory T cells (Tregs) in patients with hepatocellular carcinoma (HCC). Relevant evidence regarding prognostic significance of Tregs was searched. A meta-analysis was performed to the compare survival in patients with high Tregs count (either in circulatory system or intratumoral area) and those having low number. Eighteen studies were identified to be fulfilled for the eligibility criteria and included for data synthesis. Our pooled hazard ratios (HRs) demonstrated that increased Tregs intratumoral accumulation was significantly associated with worse overall survival (HR=2.04, 95% CI: 1.72-2.42) and disease-free survival (HR=1.82, 95% CI: 1.58-2.09). Three studies evaluated the role of peripheral Tregs and all of them showed that increased peripheral Tregs correlated with shortened disease-free and overall survival. The increased Tregs count is tightly associated with the shortened survival. Its measurement in either primary tumor or even circulation might be a clinically candidate marker of prognostic significance in HCC patients.

P43
Injection of cyanoacrylate glue: a safe and effective office procedure for management of varicose Veins
SY Lee, YC Pang and CN Tang
Pamela Youde Nethersole Eastern Hospital, 3 Lok Man Road, Chai Wan, HKSAR

Aim: To report the early results of endovenous cyanoacrylate glue injection for patients with varicose vein disease.
Method: This is a retrospective study conducted in a regional hospital. Patients with primary greater saphenous veins (GSV) disease with clinical severity C2-C6 according to the CEAP classification were included in the study. Patients were treated with endovenous injection of cyanoacrylate adhesive agent through a special catheter-based delivery system, under local anaesthesia as an office procedure. Duplex ultrasound was performed on follow-up visit and clinical outcomes were assessed by Venous Clinical Severity Score (VCSS).

Results: 52 patients underwent the endovenous intervention during the study period. Average day ward procedure-to-discharge time was 122 minutes (standard deviation 24.3). Mean follow-up period was around 6 months. Ultrasound showed 100% obliteration rate of GSV. Over 96.2% of patient had improvement in the Venous Clinical Severity Score. There were no major complications of wound infection or deep vein thrombosis.

Conclusion: Endovenous cyanoacrylate glue injection appears to be a feasible, safe and effective office-based procedure for management of incompetent GSV. Long term follow up results will be reported later to determine if the clinical efficacy can be maintained with time.

P44
Mycotic anastomotic pseudoaneurysm of renal allograft artery caused by pseudomonas aeruginosa: case report and literature review

MMT Chung, YC Chan, Y Law and SWK Cheng
Division of Vascular & Endovascular Surgery, Department of Surgery, University of Hong Kong Medical Centre, Queen Mary Hospital, Hong Kong

Background: Mycotic anastomotic pseudoaneurysm of renal allograft artery is a rare complication of renal transplantation with less than 30 cases known to the literature.

Aim: To report a rare case of mycotic pseudoaneurysm caused by multi-drug resistant Pseudomonas aeruginosa and to review the literature for reported mycotic pseudoaneurysms regarding their causative agents and treatment modalities.

Methods: We report a 42 year-old man with end-stage renal failure due to diabetic nephropathy who had a renal transplant anastomosed to right external iliac artery and vein. He presented with right iliac fossa discomfort and fever 3 weeks post-operatively. CT scan showed a 3.8cmx3.5 cm pseudoaneurysm posteromedial to graft kidney.

He underwent emergency graft excision and pseudoaneurysm resection with in-situ reversed long saphenous vein interposition graft. Aneurysm wall grew Pseudomonas aeruginosa. Subsequently he made good recovery on multiple antibiotics and haemodialysis.

Literature search was conducted via Pubmed database using the keywords “mycotic pseudoaneurysm”, “renal artery” and “renal transplant”. Exclusion criteria include non-mycotic pseudoaneurysms and pseudoaneurysms occurring outside the anastomosis between renal allograft artery and external iliac artery.

Results: 28 cases of mycotic pseudoaneurysms were selected for review. Most require graft nephrectomy with only one successful case of conservative treatment. 82.1% yielded fungus in the resected specimen. So far there are only three reported cases caused by Pseudomonas aeruginosa.

Conclusion: This is one of the first few reported cases in which multi-drug resistant Pseudomonas aeruginosa mycotic anastomotic pseudoaneurysm developed after renal transplantation. Most require graft nephrectomy and vascular reconstruction.

P45
Significantly decrease length of stay in colorectal cancer surgery. early experience of eras program in Tseung Kwan O Hospital

SL Ho, YW Wong, MK Lee, WY Tam, KY Yuen and LC Chong
Department of Surgery, Tseung Kwan O Hospital

Aim: We started ERAS program since November 2015 for elective colorectal cancer surgery. We aim to compare with our result with 2013 in the form of historical cohort.

Method: Prospective data collection on the ERAS cases was done, and comparison with the result from July to December of 2013 was carried out.

Result: From November 2015 to May 2016, 49 cases were included. Mean age of patients was 69. All case undergoes major colorectal resection with 91.8% done in laparoscopic method. 6.1% had extra colonic organ resection as tumor involvement. 26.5% had stoma creation.

87.8% had pre-operative carbohydrate load given and only 20.4% patient had pre-operative bowel preparation.

0% had Ryle’s tube insertion and only 28.6% had drain placement.

Median of first flatus and first bowel opening is on day 1 and day 2 respectively.
Median of the length of stay after surgery is 4 days. Leakage rate is 0%, Mortality rate is 0% and major complication rate is 4%

Compared with the 52 cases from our center in late 2013, median of length of stay is 9 days, with 11% major complications. ERAS can significantly decrease the median length of stay from 9 days to 4 days (P < 0.05) without significantly increase complication rate.

**Conclusion:** ERAS program for colorectal cancer surgery is feasible, safe and can significantly improve patient recovery and decrease length of stay.

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**P46**

**Predictive value of abnormal computer tomography findings on outcome of intestinal obstruction**

WB Wong, CF Mak and CC Cheung
Department of Surgery, Tuen Mun Hospital, HKSAR

**Aim of study:** CT is often used for pre-operative diagnosis of intestinal obstruction. Value of radiologic features in prognosis is uncertain.

**Method:** A retrospective study was performed on patients who had a contrast CT within 24 hours before operation. Ileus secondary to peritonitis and delay for >24 hours were excluded.

Five features including pneumoperitoneum, ascites, hypoenhancement, intramural gas and portal venous gas were investigated. Outcomes including 30 day mortality, relaparotomy, stoma and bowel resection were measured.

**Result:** 265 patients were identified. Ascites was most frequent in both malignant obstruction (75.8%) and non-malignant obstruction (76.3%). Hypoenhancement was seen in 27 (10%), followed by presence of pneumoperitoneum (7%). Intramural gas was seen in 14 (5%) and portal venous gas in 2 (0.7%).

In small bowel obstruction, pneumoperitoneum is associated with need for stoma (11.1% vs 1.5%, p = 0.048). More bowel resection (73.1% vs 25.8%, p = 0.00) and stoma creation (7.7% vs 0.8%, p = 0.025) was found with hypoenhancement.

In right colonic obstruction, stoma creation tends to be more in patient with pneumoperitoneum (50% vs 15.3%, p = 0.076), pneumatosis coli (33.3% vs 15.8%, p = 0.282) and portal venous gas (100% vs 16.1%, p = 0.028).

No statistical significant differences were found in 30 day mortality with these features or not. There was no statistical difference in 30 day mortality for resection of the segment of bowel involved by pneumatosis or not (16.7% vs 12.5%, p = 0.825)

**Conclusion:** Hypoenhancement of small bowel is a strong predictor for bowel resection and stoma creation. Bowel preservation with intramural gas did not increase mortality. Both patients survived.

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**P47**

**Surgical management of symptomatic urachal anomalies in adulthood: a 6-year retrospective review**

CTY Tse, L Li and C Chan
TUEN MUN HOSPITAL, TUEN MUN, NEW TERRITORIES, HONG KONG.

**Aim:** Urachal anomalies are rare conditions carrying a considerable risk of morbidity. Given the different presentation and management for adult and paediatric patients, and that evidence is particularly lacking for adults, this study was carried out to report our experience with surgical management of symptomatic urachal remnants in adults at a major hospital from Hong Kong.

**Methods:** Records of adult patients with diagnosis of urachal anomalies over the past six years (2011–2016) were reviewed. Extracted information included demographics, clinical presentation, investigation process, surgical management, length of stay and complications. A descriptive analysis was employed for statistical evaluation.

**Results:** 25 patients with symptomatic urachal anomalies were surgically managed. The age at operation was 29 (16–61) years. 88% of patients presented with abdominal pain, umbilical discharge and swelling, while one patient presented with urinary symptoms. Radiological imaging was used to assist the diagnostic process in 84% of cases. Both open (80%) and laparoscopic (20%) approaches were effective in treating urachal anomalies, with short post-operative hospital stays and low complication rates. The median length of post-operative stay was 4 (1–15) days and surgical site infection (8%) was the commonest complication. Post-operative ileus (4%) occurred in one patient while the rest recovered uneventfully.

**Conclusion:** Since urachal anomalies are rare in adults and often present with non-specific symptomatologies, a high index of suspicion is required to establish the diagnosis. Surgical excision is the treatment of choice, with low risks of recurrence or complications, and also prevents future malignant transformation.
P48
The use of NSAID in the prevention of post ERCP pancreatitis
KM Wong, LS Wong, SCL Wong, KF Wong and SK Leung
Department of Surgery, Tuen Mun Hospital, Address: 23 Tsing Chung Koon Road, Tuen Mun, NT

Aim: The aim of this study was to evaluate if the administration of rectal diclofenac sodium could prevent post ERCP pancreatitis in our local population.

Methods: A single centre, retrospective study was performed in Tuen Mun Hospital. Each patient was routinely administered a single dose of diclofenac sodium in the formulation of VOLTAREN® suppository 100 mg immediately after ERCP, when the procedure was performed by the Department of Medicine. No NSAID suppository was administered when the ERCP was performed by the Department of Surgery. The incidence of post ERCP pancreatitis between the 2 groups was compared. Other possible risk factors were also identified by comparing patients with or without pancreatitis.

Results: 368 ERCPs were performed from 1/12/2014 to 30/5/2015. 9 patients admitted for acute pancreatitis and 126 patients with history of sphincterotomy were excluded from the study.

NSAID suppositories were administered immediately after ERCP in 67 cases (28.8%). The NSAID group and the non NSAID group were comparable in terms of age, indications for the ERCP and most of the risk factors.

Post ERCP pancreatitis developed in 1 of 67 patients (1.49%) from the NSAID group and in 9 in 166 patients (5.42%) from the no NSAID group. (p = 0.28).

Conclusions: The results of our study showed that routine use of Voltaren suppository does not significantly reduce the rate of post ERCP pancreatitis.

P49
Laparoscopic assisted resection for colorectal cancer in solid organ transplant recipients
Z Xia and G Lin
Department of General Surgery, Peking Union Medical College Hospital, No.1 Shuaiyuyuan Wangfujing, dongcheng district, Beijing, China

Aim: Solid organ transplant recipients with colorectal cancer (CRC) have increased risks for conventional open surgery. These patients seem to benefit more from laparoscopic surgery, considering its favorable oncological outcomes and outstanding short-term advantages. The purpose of this study is to present the outcomes of laparoscopic assisted resection for CRC in five patients undergoing transplantation, and evaluate the safety and feasibility of this approach.

Methods: All cases of organ transplant patients who developed de novo CRC and underwent laparoscopic assisted resection from September 2001 to April 2016 in our institution were retrospectively. Their clinical data were summarized, including patient demographics, immunosuppressive therapy, tumor characteristics, surgical outcomes, and follow-ups.

Results: Four kidney and one heart transplant recipients were included. Laparoscopic assisted low anterior resection was performed in four patients with rectal or rectosigmoid junction cancer, and sigmoidectomy was in one with sigmoid colon cancer. One patient received protective loop transverse colectomy. All resections achieved complete tumor removal with tumor-free margins and total mesorectum, and an average number of 14 lymph nodes were harvested. Most tumors were in stage III, one in stage IV. The mean duration of surgery, blood loss and postoperative hospital stay were 145 minutes, 105 mL, and 8.8 days. There were no other complications but one anastomotic hemorrhage, and graft function stayed well. During the mean of 62 months’ follow-up, one patient was observed to have metastasis to liver and bone.

Conclusion: Laparoscopic resection for CRC in organ transplant recipients is technically feasible and oncological safe.

P50
Endoscopic resection for upper gastro-intestinal submucosal tumors: a single-center experience
FCL Chow, DKH Tong, KK Chan, IYH Wong, TT Law, SY Chan and SYK Law
Division of Esophageal and Upper Gastrointestinal Surgery, Department of Surgery, The University of Hong Kong, HKSAR

Aim: Endoscopic submucosal dissection (ESD) is a well-established treatment modality for gastro-intestinal epithelial tumors. It has also been applied to resect submucosal tumors (SMTs), but clinical evidence on this respect is limited. Our aim is to
investigate the efficacy and safety of endoscopic resection for upper gastrointestinal SMTs.

**Methods:** Between August 2008 and April 2016, 35 patients with esophageal (n = 7), gastric (n = 23) and duodenal (n = 5) SMTs underwent endoscopic resection. Lesions originating from mucosa as per endoscopic ultrasound (EUS) or intraoperative findings were excluded. Characteristics of patients and SMTs, therapeutic outcomes, complications, and follow-up outcomes were retrospectively evaluated.

**Results:** The median age was 54 years old (range 21–74), and fourteen patients (40.0%) were male. The mean size of the SMTs was 14.17 ± 8.6 mm (range 3-50 mm). The overall rates of en-bloc resection and complete resection were 100% (35/35) and 79.4% (27/34) respectively. Complete resection rate in distal gastric lesions was significantly higher (100%, versus 85.7% in esophagus, 50% in proximal stomach and 20% in duodenum, p = 0.002). Procedure-related bleeding was 2.9% (1/35). Four esophageal lesions were resected in submucosal tunneling approach; two duodenal lesions in combined endo-laparoscopic approach in view of full-thickness involvement. Six perforations occurred (6/33, 18.2%); all were detected during the procedure, and were immediately repaired laparoscopically or with endoclips. All patients had smooth postoperative recovery.

**Conclusion:** Endoscopic resection is an effective, safe, and feasible treatment for upper gastro-intestinal SMTs.

**Appendix: Pathology of lesions**

- 12 pancreatic heterotopia
- 5 neuroendocrine tumor
- 5 gastrointestinal stromal tumor
- 4 leiomyoma
- 3 submucosal lipoma
- 1 glomus tumor
- 1 granular cell tumor
- 1 submucosal hematoma
- 1 lymphoid aggregates
- 1 specimen could NOT be retrieved

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**P51**

**Mechanical Bowel Preparation with oral antibiotics cannot reduce surgical site infection in elective colorectal surgery, a retrospective cohort in a local hospital.**

**Objective:** To clarify whether mechanical bowel preparation with oral antibiotics would reduce surgical site infection in patient undergoing elective colorectal resection

**Method:** A retrospective cohort of adult patients undergoing elective colorectal resection in Yan Chai Hospital between July 2015 and June 2016. 91 Patients with ASA < or =3, between 18 and 95 years old, were included in analysis. 3 doses of 1 g oral neomycin and 400 mg metronidazole, 2 L of PEG were used 1 day before operation. Pre-op dose of augmentin were given in all patients and was continued 1 day post op. Their surgical site infection rate was compared. Secondary endpoint including day of first bowel opening, length of hospital stay, readmission rate were compared. Intention to treat analysis was followed.

**Results:** 51 (52.5%) patients were given mechanical bowel preparation with oral antibiotics (antibiotic bowel preparation group); while 46 patients (47.4%) were in control group. 4 patients (4.1%) in antibiotic bowel preparation group had surgical site infection, 3 (3.1%) of them had deep surgical site infection, while in control group there were 3 patients (3.1%) with surgical site infection and 2 (2.1%) of them had deep surgical site infection. (p = 0.71, p = 0.39 respectively). There was no statistical significant difference in anastomotic leakage rate (p = 1.00), length of hospital stay (p = 0.14), 30 day readmission rate (p = 0.51). There was no statistical difference in terms of patient demographic, ASA grade and type of operation.

**Conclusion:** This study did not show any benefit in giving mechanical bowel preparation with antibiotics before elective colorectal resection. However, large scaled randomized controlled trial is needed to further clarify the result.

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**P52**

**Mandibular reconstruction using reconstruction plate in patients with segmental mandibulectomy**

LI Ho, TL Chow and SC Fung

Department of Dentistry and Maxillofacial Surgery, Department of Surgery, United Christian Hospital, 130 Hip Wo Street, Kowloon Tong, Kowloon, HKSAR

**Aim:** Reconstruction plate for segmental mandibular reconstruction has been criticized for its unfavourable outcome. With the improvement in the hardware design and better soft tissue flap coverage in the past 2 decades, mandibular reconstruction with reconstruction plate might have a better result. We herein
to present our experience in mandibular reconstruction using reconstruction plate in patients with segmental mandibulectomy.  

**Method:** All patients who underwent mandibular reconstruction with reconstruction plates between 2007 and 2016 were identified from the database of Departments of Surgery and Oral and Maxillofacial Surgery. Relevant clinical data was retrieved and the post-operative complication and functional outcomes were evaluated.  

**Results:** A total of 14 patients (4 females; 10 males) aged ranging from 56–82 years (median: 76) were included in the series. 5 patients were diagnosed with squamous cell carcinoma, 2 patients with medication-related osteonecrosis of jaw, 3 patients with osteoradionecrosis of jaw, 2 patients with osteosarcoma and 2 patients with ameloblastoma. 10 of them underwent segmental mandibulectomy, 2 of them had subtotal mandibulectomy and remaining 2 had hemimandibulectomy. All patients had mandibular reconstruction plate and soft tissue flap reconstruction of the surgical defect. The median operative time was 6 hours. The median total blood loss was 300 ml. The median hospital stay was around 2 weeks. The median total blood loss was 300 ml. The median hospital stay was around 2 weeks.

**Conclusion:** Reconstruction plate and soft tissue flap is an acceptable option of mandibular reconstruction and good functional outcomes are achievable.

**P53**

**Surgery-prioritized multimodality therapy for the esophagogastric junction carcinoma**

G Zhang and Q Xue  
Thoracic Surgery Department, Chinese Academy of Medical Sciences & Peking Union Medical College, Cancer Hospital Chinese Academy of Medical Sciences; No. 17 Pan-jia-yuan South Lane, Chaoyang District, Beijing, China;  

**Aim:** The classification and treatment patterns of esophagogastric junction carcinoma do not comply with the “gold standard” for its unique anatomical location and biological characteristics. To further investigate the optimal multimodality therapy giving priority to surgery for the esophagogastric carcinoma, we conducted this research.  

**Methods:** we searched databases for studies about therapies of esophagogastric junction carcinoma that were published in English or Chinese up to February 29, 2016. Most statistical tests were two-sided.

**Results:** Surgery is considered as the first choice for the treatment of EGJC. For patients with resectable type I tumors, a transthoracic en bloc esophagectomy with resection of the proximal stomach (2-field lymphadenectomy), followed by a reconstruction with intrathoracic esophagogastronomy is recommended. For patients with resectable type II and III tumors, an extended total gastrectomy with transhiatal resection of the distal esophagus (lower-mediastinal and D2 abdominal lymphadenectomy) followed by a reconstruction with Roux-en-Y esophagojejunosotomy is recommended. Many clinical trials have proved the adjuvant therapy and neoadjuvant therapy are beneficial to the improvement of surgical resection and survival rate. However, the combinations of chemotherapeutic agents and timing of administration of the drugs remain undefined. Molecular targeted drugs might bring light for the treatment of locally advanced EGJC.

**Conclusion:** Individual therapy of EGJC has become increasingly important with the development of science and technology and the results of large clinical researches published, which also highlights the importance of multidisciplinary collaboration.

**Keywords:** EGJC (esophagogastric junction carcinoma), surgery, multimodality therapy, neoadjuvant therapy

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**P54**

**Value of preoperative carbon tattoo in localising targeted lymph node and breast lesion**

YY Yip  
Basic Surgical Trainee, Kwong Wah Hospital, 25 Waterloo Road, KLN  

**AIM:** Carbon tattoo is the newer alternative as a localisation marker for breast lesion and lymph node which exhibit its own advantage in comparison with usual blue dye, radioisotope or wide guide. This report is to demonstrate the use of carbon tattoo and discuss its value as pre-operative marker of targeted lymph node and breast lesion.

**Method:** Ultrasound guided carbon tattoo in localizing specific lymph node in a case of suspected lymph node recurrence in carcinoma of breast with previous
axillary dissection performed. Activated charcoal is injected to two targeted lymph node detected on ultrasound pre-operatively.

**Result:** The targeted two lymph nodes are identified with ease intra-operatively and excised en bloc. Patient experienced no allergic reaction or skin staining.

**Conclusion:** Preoperative carbon tattoo in localising targeted lymph node is a feasible and valued method. It can be used in patient with previous axillary dissection which lymphatic drainage system was distorted that methyl blue cannot be used. It is stable that remains within track and does not disperse to surrounding tissue and can be injected days before operation, in which may raise the possibility of use even before neoadjuvant chemotherapy. Carbon has no radiation risk and it is used for centuries for tattooing which demonstrated with low allergic rate. Disadvantage of carbon tattoo is the colour of charcoal is black in which the use of diathermy haemostasis may interfere the identification of labeled lesion.

**P55**

**Ultrasound by surgeon is an effective pre-operative localisation method for parathyroid surgery: a review of a single centre experience**

SY Lee, CY Law, CY Choi and CN Tang

Pamela Youde Nethersole Eastern Hospital, 3 Lok Man Road, Chai Wan, HKSAR

**Background:** Primary hyperparathyroidism (PHPT) is a common endocrine disease. Currently minimally invasive parathyroidectomy (MIP) with pre-operative localisation has gained popularity in many centres. Ultrasound (USG) is a frequently used for pre-operative localisation. In this study we aim to see if pre-op USG by surgeon is as effective as those performed by dedicated radiologists.

**Methods:** This is a retrospective review of all patients undergoing parathyroidectomy for PHPT in our centre from 2000 to 2014. Basic demographics, pre-operative biochemical profile, imaging results and operative findings were reviewed and analysed.

**Result:** 87 patients undergone surgery for PHPT during the study period, of which 60 patients had MIP approach. The overall cure rate in our series is 94.3% which is comparable to current literature. 32 patients had pre-op USG by radiologists and 18 by surgeons. In the radiologist group, USG failed to locate the parathyroid lesion in 7 of the patients, where as in surgeon group, USG failed in 2 patients (21.9% vs 11.1%, p = 0.459)

1 of the failed cases in the radiologists group underwent neck exploration while the rest underwent MIP after CT localisation. The 2 failed cases in surgeons group underwent neck exploration.

**Conclusions:** Pre-op USG localisation of parathyroid lesions by surgeons may be more accurate than those by radiologists, although not reaching statistical significance. We recommend routine pre-op USG by surgeons before MIP.

**P56**

**Post-thyroidectomy vocal cord palsy: a review of risk factors**

SCW Chow, SWY Tam and LC Chong

Tseung Kwan O Hospital, No 2, Po Ning Lane, Hang Hau, Tseung Kwan O, Kowloon

**Aim:** Post-thyroidectomy vocal cord palsy is a detrimental complication with significant social implications. The incidence of it has been reported in the range of 3.5% to 6.6%. Our study aims to identify significant risk factors for post-thyroidectomy vocal cord palsy.

**Method:** A retrospective review of patients undergoing partial, completion and total thyroidectomies in a district hospital from January 2015 to December 2015 was conducted. Data collected included patient demographics such as age and sex, type and duration of operation, surgeon experience, specimen pathology and operative complications. Univariate analysis was carried to examine for risk factors of post-thyroidectomy vocal cord palsy.

**Results:** A total of 98 thyroidectomies (54 partial, 14 completion, 30 total) were analysed. The overall rate of post-operative vocal cord palsy was 7.9%. The rate was highest for total thyroidectomy (10.3%), followed by completion thyroidectomy (6.7%) and partial thyroidectomy (5.6%). Age, gender, surgeon expertise, pathology and laterality of thyroidectomy were not associated with vocal cord palsy. Surgeons with low annual caseload and young specialists tend to have a higher rate of vocal cord palsy. This was, however, statistically insignificant, likely due to the small sample size and low number of events.

**Conclusion:** This review suggests that surgeons with low annual caseload and young specialists were associated with a higher rate of post-thyroidectomy vocal cord palsy. Hence, in order to improve the safety of thyroidectomy, a sufficient caseload per surgeon and adequate support for young specialists are advisable.
P57
Type of stent-grafts used in type B aortic dissection in China: review of literature
HL Li,1 YC Chan2 and SW Cheng2
1Division of Vascular Surgery, Department of Surgery, University of Hong Kong Shenzhen hospital, Shenzhen, China.
2Division of Vascular & Endovascular Surgery, Department of Surgery, University of Hong Kong Medical Centre, South Wing, 14th Floor K Block, Queen Mary Hospital, Hong Kong.

Objective: Endovascular stent-graft placement had been introduced as a novel and less invasive treatment for type B aortic dissection (AD) since 1999 in China. The aim of this study was to analyze the results of different stent-grafts used for type B AD in China.

Method: Pubmed, MEDLINE and Chinese National Knowledge Infrastructure (CNKI) databases were searched between January 1999 to December 2015 to identify articles related to endovascular treatment of type B AD in China. Papers with a minimum series of 10 patients were included. Type of stent-graft, technical success, peri-operative complications and false lumen thrombosis were analyzed using SPSS.

Results: There were 81 papers retrieved (4 English, 77 Chinese), type of stent-graft was specified in 35 papers. A total of 2050 stent-grafts had been used in 2032 patients, 1587 (78%) patients were male, mean age ranged from 46 to 65 years. The most commonly used stent-graft were Medtronic Talent (598, 29%), Cook Zenith (279, 14%) and Microport Hercules (277, 14%). Sixty-nine percent of the stent-grafts were imported. Procedural success was reported in 99.2/1.5% of patients. Overall complication rate and neurologic complication rate were 12.2/9.4% and 2.3/1.0%, respectively. Post-operative endoleak was observed in 9.4/6.8% of patients. The 30-day mortality was 2.7/1.6%. During the follow-up, false lumen thrombosis was observed in 89.5/9.6% of patients. Re-intervention was performed in 2.4/1.6% of patients.

Conclusions: Endovascular treatment for type B AD in China is feasible and safe. Long-term follow-up is lacking to identify the durability of different type of stent-grafts.

P58
Inducing PD-L1 expression on tils to enhance anti-tumor immune response: can it be a new treatment for breast cancer brain metastatic patients?
X Wang, Q Sun, X Cao and Y Xu
Breast Surgery Department, Chinese Academy of Medical Sciences & Peking Union Medical College, Peking Union Medical College and Hospital; No.3dongdan, dongcheng district, Peking Union Medical College Hospital, Beijing, China;

Aim: The BCBM rate is 10–16 % of breast cancer patients. Due to the blood brain barrier, there is no effective way to the BCBM patients. PD-L1 related pathway is a major immune response, which is also the target for cancer immunotherapy. Nowadays, researches show PD-L1 is related to a better prognosis. And this is benefit from TILs and the immune response activated by it. So we want to activate anti-tumor immune response to let patient cure themselves. This is different from blocking the PD-1 or PD-L1 before. It’s from the opposite.

Methods: We use PD-L1+TILs to activate the lymphocytes, just as the natural response we have seen in human body. However, we need more basic trials to explore mechanisms.

Results: we raised the hypothesis that Inducing PD-L1 expression on TILs to enhance anti-tumor immune responses: Can it be a new treatment for breast cancer brain metastasis (BCBM) patients? Next, we need more basic trials to explore mechanisms, and a series of researches should be performed to explore the administration standards and ways of TILs injection and the therapeutic dosage, periodicity. Then the treatment could be conducted on BCBM mice to observe the curative effect and safety. Quantity of CTC and OS could be used to evaluate the effect.

Conclusion: According to the hypothesis, the laboratory research and clinical study should be prepared successively. When the above details are confirmed, inducing PD-L1 expression on TILs to enhance anti-tumor immune responses may become a promising treatment for BCBM patients.

P59
Retrospective review on severe deep neck infection with necrotizing fasciitis and/or descending mediastinitis in a region hospital in Hong Kong—6 years experience
HC Ho, TL Poon, YW Mak and WK Choi
Department of Surgery, Tuen Mun Hospital, Hong Kong SAR
Aim: Necrotizing fasciitis over head and neck region was a rare but fatal severe deep neck infection. To review the clinical course, risk factors and treatment outcome of necrotizing fasciitis over head and neck region, with or without mediastinal involvement, in Tuen Mun Hospital from year 2010–2015.

Method: We retrospectively reviewed all patients with deep neck infection under the care of the department of Surgery in Tuen Mun Hospital from year 2010–2015. Patients with necrotizing fasciitis over head and neck region with or without descending mediastinitis were included. Patients with deep neck infection without necrotizing fasciitis would be excluded. Patients’ demographic factors, comorbidities, clinical presentation, cause of infection, investigation results, microbiology and pathology results, surgical interventions, management of descending mediastinitis, hospital stay and outcome were analysed.

Result: Total 15 patients with necrotizing fasciitis over head and neck region included. 9 patients (60%) had descending mediastinitis. Overall mortality rate was 26.7% (n = 4). The commonest cause was pharyngotonsillar infection (40%). 53.3% of the patients had underlying comorbidities, which was found to be a risk factor associated with mortality (p = 0.014) and development of descending mediastinitis (p = 0.02). For patients with descending mediastinitis, 7 patients received drainage via the neck wound. 4 patients required thoracoscopic or open drainage for descending mediastinitis. 5 patients required reconstruction for the wound defect.

Conclusion: Early diagnosis, aggressive surgical intervention, with multi-disciplinary approach including Plastic surgeons, Cardiothoracic surgeons and intensive care support, were important in the management of patients with necrotizing fasciitis of the head and neck region.

Background: Uveal melanoma (UM) is the second most common type of melanoma after the cutaneous manifestation. Surgical resection remains the best single treatment for metastatic melanoma. However, very little literature on pancreatic resection for metastatic melanoma.

Case Report: We present a case of metastatic UM with solitary lesions in the liver and pancreas. In this case, there has been a prolonged survival of thirteen years following aggressive surgical management. His past medical history was significant for left ocular melanoma, which was treated with enucleation in 1993. Abdominal B-mode ultrasonography and abdominal computed tomography (CT) demonstrated huge occupation in right liver. Then the patient underwent a local resection of the liver. The final pathology was consistent with metastatic melanoma. After 2 months, the magnetic resonance imaging (MRI) showed occupation in pancreas body and tail. Then he underwent pancreatic body and tail resection. The final pathology was consistent with metastatic melanoma in pancreas.

Conclusions: The survival of patients seems to be affected by the ability to perform a curative resection. Curative surgical resection can be offered to patients even with multiple organ malignant melanoma metastasis. Such aggressive management may lead to prolonged, and disease-free survival.

P61
Gastric intussusception – a rare complication of gastric tumours: case reports

LWY Ma

Intussusception is rare in adults and usually is secondary to organic lesions. We would like to report on an uncommon complication of gastric tumours with gastroduodenal /gastrogastric intussusception. We present 3 patients of known gastric tumour with anaemia complicated by intussusception. Diagnosed was made by computer tomography of the abdomen. One patient had elective laparoscopic to open distal gastrectomy and the other 2 underwent an emergency synchronous endoscopic and laparoscopic treatment of such rare condition.