

Characteristic curve analysis was used to establish accuracy, sensitivity and specificity compared to pathological stage.

Results: Of 425 patients, 83 met the inclusion criteria. Accuracy for T4 disease was 88.2% ERUS and 83.8% MRI. MRI had greater sensitivity than ERUS for nodal stage (69.2% vs 48%) but lower specificity (52.4% vs 69%). Post-chemotherapy MRI had greater accuracy (93.8%) and specificity (100%) for ypT0 disease than ERUS (84.6% and 91.7%). ERUS was more sensitive for nodal sterilisation (ypN0) than MRI (75% vs 37.8%), although accuracy was poor in both modalities (53.8% and 48.8%).

Conclusion: ERUS is a valuable adjunct to MRI in local staging of rectal cancer and may be superior in detecting T4 disease and nodal response post-radiotherapy. Restaging of rectal cancer following chemoradiation continues to be a challenging problem.

1332: COLONOSCOPY UNDER ENTONOX IS FEASIBLE AND IS ASSOCIATED WITH POTENTIAL COST SAVINGS: A REVIEW OF A DGH EXPERIENCE

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Aim: Entonox has been proposed as an alternative to intravenous sedation during colonoscopy, but is rarely used. This study aims to establish the efficacy and cost-effectiveness of Entonox as the sole analgesic during colonoscopy.

Methods: A prospectively-held database was reviewed. Practice involved offering Entonox as the sole analgesic, with provision of IV sedation and analgesia to patients who refuse or cannot complete the procedure under Entonox. Potential cost savings was calculated.

Results: The total of 322 procedures performed during 18 months' period was studied. Fifty percent attempted Entonox, whilst the rest requested IV sedation. The majority who attempted Entonox (146, 91%) completed the procedure without additional analgesia, whilst 15 (9%) required so. Average comfort score was similar in the Entonox and Sedation groups. Rate of successful caecal intubation and proportion of patients diagnosed with polyps were similar between groups. Cost savings achievable by using Entonox were calculated as £1.65/patient. In our department, this potentially amounts to £789-£1754 annually depending on the rate of Entonox uptake by patients.

Conclusions: Entonox is an effective analgesic during colonoscopy in significant proportion of patients. This practice has potential cost savings, and can be associated with quicker recovery without compromising diagnostic yield or comfort scores.

1346: DIVERTING ILEOSTOMY SITE CLOSURE HERNIATION: HOW MUCH OF A PROBLEM IS IT?

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Aims: The prevalence of abdominal wall herniation at the site of a reversed ileostomy is uncertain. This study investigated the prevalence of CT abnormalities at the site of a reversed loop ileostomy.

Methods: Data over a 5 year period was used. Cancer surveillance CT images were graded as to defined anatomical abnormalities (0-normal; I-atrophy; II-defect(s) & III-herniation).

Results: 59 patients (mean age 65 years; range: 29-79) had ileostomies closed (median time 6 months; range: 2-22). 43 underwent surveillance CTs at 1-3 years. One year after reversal, abnormalities (atrophy or defects) in the anterior abdominal wall were apparent in 37%. At 2 years, CTs in 4 patients (14%) were 're-graded'; two developed some degree of atrophy (grade 0 to I), in one a defect appeared (grade I to II) and in one an asymptomatic hernia was found (grade I to III). None of the 12 patients with serial CTs at 3 years developed changes as compared to their 2 year scan.

Conclusion: Defects in the anterior abdominal wall at the site of a closed ileostomy are not uncommon. Their frequency increases with length of follow-up but true herniation is unusual. The routine use of prophylactic mesh at ileostomy closure is unnecessary.

1381: EXPLORING THE USE OF ROUTINE BLOOD TESTS TO PREDICT PATHOLOGICAL RESPONSE TO TREATMENT IN PATIENTS RECEIVING NEOADJUVANT THERAPY FOR RECTAL CANCER

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Aims: The aim of this study is to examine the relationship between pre-neoadjuvant CRP, Albumin, Haemoglobin (Hb), neutrophil-lymphocyte ration (NLR), platelet-lymphocyte ration (PLR) and tumour regression in patients receiving neoadjuvant therapy for rectal cancer.

Methods: Patients undergoing neoadjuvant therapy for rectal cancer were studied. Radiology reports, routine blood results including CRP, Albumin, NLR, Hb, PLR were recorded. Routine Haematoxylin and Eosin stained slides were reviewed to determine the tumour regression grade (TRG).

Results: 118 patients were studied; 40% had a TRG associated with a good response, 45% had no radiological response, 42% showed downstaging and 13% showed stage progression. On Chi-squared analysis, radiological response (P=0.008), older age (P=0.010) and an elevated CRP (P=0.017) was associated with poor pathological response. Only an elevated PLR (P=0.016) was associated with poor radiological response. On DFS analysis, radiological response (P=0.007), TRG (P=0.042), raised CRP (P=0.001) and Low Hb (P=0.007) were associated with poorer survival. On multivariate survival analysis only raised CRP (Hazard Ratio 2.45 95% Confidence Interval (1.16-5.16); P=0.019) was independently associated with poorer survival.

Conclusion: This study demonstrates an association between routine blood parameters and response to therapy. Delineating this association may further support the use of these parameters in decision making on neoadjuvant therapy.

1387: A SINGLE INSTITUTION EXPERIENCE OF ILEAL-POUCH ANAL ANASTOMOSIS

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Aims: The purpose of this study was to assess the outcomes in patients who have undergone laparoscopic Ileal-Pouch Anal Anastomosis (J Pouch).

Methods: A retrospective review was carried out of patients who had J pouch surgery between 2008-2013. Complications were grouped into time periods and graded according to the Clavien Dindo Classification. Functional outcomes were assessed using The Gastrointestinal Quality of Life Index and Wexner Scoring Systems.

Results: Forty two patients were identified. 20 of these underwent laparoscopic surgery. The majority were male (90%) and had a diagnosis of ulcerative colitis (95%). The median LOS for completion surgery was 6 days (3-11 days). There were no immediate complications, 20% of patients had an early complication, 15% had a late complication. There were no Grade IV or V complications, 10% were classed as Grade III, the rest were Grade I and II. Half of patients gave a Wexner score 0 indicating no faecal incontinence, 11% gave a score above 5/20. The median frequency of daily bowel movements was 5.5(1 – 12) and nocturnal was 1.5.

Conclusions: Patients who undergo laparoscopic J pouch surgery generally have good results. The complication rate compares favourably to international standards and functional outcomes are promising.

1401: PATIENTS REFERRED WITH ANAEMIA INVESTIGATED BY ENDOSCOPY: DOES ANAEMIA SUBTYPE MATTERS?

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Aim: To assess if non-microcytic or non-iron deficiency anaemia has a similar cancer risk as microcytic anaemia.

Method: Eighteen-month retrospective study of all patients who had endoscopies where anaemia was mentioned as an indication within an endoscopy database at a District general hospital.

Results: 358 cases were identified, 203 females and 155 males. Age ranged from 18 to 93 years with a mean, median and mode of 67, 69 and 82 respectively. Anaemia subtypes were known for 306 patients (macrocytic-19, microcytic-138, normocytic -149). 3 patients had upper gastrointestinal cancer and 25 patients had colorectal cancer including synchronous colorectal cancers in 2 patients (1 microcytic, 1 normocytic). Overall cancer risk in this study is 7.82%. Upper gastrointestinal cancer risks in patients according to anaemia subtype were macrocytic (0%), microcytic (0.7%) and normocytic (1.3%). Colorectal cancer risks in patients according to anaemia subtype were macrocytic (5.2%), microcytic (8.7%) and normocytic (6.7%).

Conclusions: Non-microcytic anaemia appears to pose a clinically important risk of cancer. Comparing microcytic to normocytic anaemia;

cancer risk was almost double for oesophago-gastric malignancy (risk ratio 1.85) and colorectal cancer risk had a 1.98% absolute risk reduction. Therefore normocytic anaemia should be investigated along similar lines to microcytic anaemia.

1409: THE EFFECT OF TRAINEE INVOLVEMENT IN COLORECTAL SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim: The aim of this meta-analysis was to compare short term and oncological outcomes following colorectal resection performed by trainees compared to consultant surgeons.

Methods: Systematic literature searches identified studies published until December 2012. Studies considering colorectal resection for benign or malignant indications were included, and the primary endpoint was rate of anastomotic leak. Secondary endpoints were rate of wound infection, 30-day mortality, R0 resection, local recurrence and cancer survival. Odds ratios (OR) and hazard ratio (HR) were calculated for outcomes using meta-analytical techniques.

Results: The final analysis included ten comparative studies of 11423 colorectal resections, of which 7309 (64.0%) were performed by consultants, 3075 (26.9%) by supervised trainees and 751 (6.57%) by unsupervised trainees. The overall rate of anastomotic leak was 2.58%. Supervised trainees had a significantly lower leak rate compared with consultants (3.20% versus 1.10%; OR 2.72, p=0.05). Meta-analysis of survival following cancer resection (to a maximum of 5 years) revealed no significant difference between trainees and consultants for overall survival (HR 1.01, p=0.930) but a slightly improved cancer specific survival with trainees (HR 0.87, p<0.001).

Conclusions: Supervised trainees may perform colorectal resection with superior short term outcomes and equivalent oncological outcome to consultants.

1411: FROM CREATION TO CLOSURE: BEWARE THE DYSFUNCTIONING LOOP ILEOSTOMY

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Aim: A dysfunctioning loop ileostomy is seen as a safe and simple procedure. We aimed to review the impact of a loop ileostomy on patients from its creation to closure.

Method: This was a single centre retrospective analysis of all patients undergoing dysfunctioning loop ileostomy between 2009 and 2012. Ileostomy related morbidity rates, readmission rates and length of hospital stay were collected on all patients.

Results: 162 patients were identified. Average age was 64 (range 18–93) and 36% were female (58/162). 4% (7/162) had stoma related morbidity before discharge, 19% (30/162) were readmitted with stoma related morbidity. 6% (10/162) had stoma-related morbidity as an outpatient. 6% (9/162) were readmitted with high output stoma and acute kidney injury. To date 112 patients have undergone closure. There was a 30% 30 day morbidity rate in those undergoing reversal.

Conclusions: This study has shown that a dysfunctioning loop ileostomy is associated with significant morbidity from creation to closure. Patients should be counselled accordingly during consent for this.

1431: RATIOS DERIVED FROM STANDARD HEMATOLOGIC INDICES PREDICT ONCOLOGIC OUTCOMES IN COLON CANCER

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Background: The interaction between inflammation and cancer is well established. This study aims to determine if surrogate markers of systemic inflammation such as the neutrophil/lymphocyte ratio are associated with long-term oncological outcomes.

Methods: Hematologic white cell ratios were established for all patients undergoing colonic cancer resection (N=458). The optimal ratios associated with overall survival were established using a classification and

regression tree technique. The associations of these ratios with overall survival were further evaluated using Kaplan-Meier estimates, log rank analysis and a cox proportional hazards regression model.

Results: Classification and regression tree analysis identified several white cell count ratios, which were associated with overall survival in an independent and statistically significant manner. The following ratios were associated with adverse overall survival: neutrophil/lymphocyte ratio greater than 7.2 (HR 2.1, P = 0.003), neutrophil/leukocyte ratio greater than 26 (HR 1.9, P = 0.005), neutrophil/white cell count ratio greater than 0.7 (HR 1.9, P = 0.005), white cell count/leukocyte ratio greater than 51 (HR 1.7, P < 0.001), white cell count lymphocyte ratio greater than 9.5 (HR 2.3, P = 0.002).

Conclusions: Multiple ratios derived from standard haematological indices are independent predictors of overall survival in patients undergoing resection for colon cancer.

1481: A COMPARISON OF COSMETIC OUTCOMES FOLLOWING SINGLE-INCISION AND MULTI-PORT LAPAROSCOPIC COLECTOMY

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Aim: The aim of this study was to objectively compare cosmetic outcomes of single incision laparoscopic colectomy (SILC) with multiport laparoscopic colectomy (MLC).

Methods: All patients who had undergone SILC at St Marys Hospital, London between 2011 and 2012 were retrospectively matched with a similar cohort who had undergone MLC procedures using 4 criteria; age, sex, type of resection and tumour stage. Comparisons were made following completion of validated quality of life, body image and cosmesis questionnaires (SF-36, GIQLI, Body Image Questionnaire).

Results: 26 Patients were evaluated (SILC=18, MLC=8). All 8 quality of life dimensions of the SF-36 questionnaire were similar between groups. The Gastrointestinal Quality of Life Index scores also revealed no statistically significant differences (111.7±5.8 vs 112.0±5.4 p=0.30). The Body Image Questionnaire demonstrated that patients in the SILC group had significantly higher body image scores (19.4±1.0 vs 17.6±0.4 p=0.037). Cosmetic scores were also higher, however this was not statistically significant (21.6±0.85 vs 19.3±1.36 p=0.16).

Conclusions: In this small retrospective comparison of patient undergoing SILC and MLC, body image was significantly higher in SILC when compared to MLC while cosmetic scores demonstrated a trend towards being higher in SILC.

ENDOCRINE SURGERY

0072: RCS/ASIT POSTER PRESENTATION PRIZE WINNER: EFFECTIVENESS OF BARIATRIC SURGERY IN WOMEN WITH AND WITHOUT POLYCYSTIC OVARIAN SYNDROME

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Introduction: The prevalence of obesity in women with polycystic ovarian syndrome (PCOS) is 50%. Weight loss is effective at enhancing insulin sensitivity, reducing hyperandrogenaemia, hirsutism and restoring menstrual regularity and fertility. However, women with PCOS appear to be less responsive to weight loss interventions. The aim of this study was to compare weight loss outcomes of bariatric surgery in women with and without PCOS.

Methods: We performed a retrospective, comparative cohort analysis of weight loss, blood pressure (BP) and glycated haemoglobin (HbA1c) following gastric bypass/band surgery in women with and without PCOS aged 18–50 years matched (±5 years) and preoperative body mass index (±5 kg/m²). Total of 56 women, 28 with and 28 without PCOS.

Results: Mean preoperative age was 28.5 years, weight 137.5 kg, BMI 50.0 kg/m², BP 135/85 mm Hg, and HbA1c 37 mmol/mol; there were no significant differences between the two groups. There was significant weight loss following bariatric surgery with no statistical difference between groups. Likewise, there was significant reduction in BMI, BP and HbA1c with no significant difference between groups.

Conclusion: Gastric bypass surgery in obese women with PCOS results in significant reductions in weight, BMI, BP and HbA1c, similar to women without PCOS.