1. **2.00 Evaluation of a hydrogel scaffold seeded with mature adipocytes for breast reconstruction post-mastectomy**  
Niama O’Halloran\(^1\), Eimear Dolan\(^2\), Michael Kerin\(^1\), Garry Duffy\(^2\), Aoife Lowery\(^1\)  
\(^1\)Lambe Institute for Translational Research, Discipline of Surgery, National University of Ireland Galway, University Road, Galway, Ireland  
\(^2\)Discipline of Anatomy, National University of Ireland Galway, University Road Galway, Ireland

2. **2.10 Characteristics of the tumour microenvironment affect the expression of inhibitory immune checkpoints on T-cells and oesophageal adenocarcinoma cells**  
Maria Davern\(^1\), Noel Donlon\(^1\), Andrew Shephard\(^1\), Jamie MacDonald\(^4\), Emma Foley\(^2\), John Reynolds\(^2\), Stephen Maher\(^1\), Melissa Conroy\(^1\), Margaret Dunne\(^2\), Joanne Lysaght\(^1\)  
\(^1\)Cancer Immunology and Immunotherapy Research Group, Department of Surgery, Trinity Translational Medical Institute, St. James’s Hospital, Dublin, D03 VX82, Ireland  
\(^2\)Department of Surgery, Trinity College Dublin, St. James’s Hospital, Dublin 8, Ireland  
\(^3\)Cancer Chemoradiation Research Group, Department of Surgery, Trinity Translational Medical Institute, St. James’s Hospital, Dublin, D03 VX82, Ireland.  
\(^4\)IMED Oncology, Astrazeneca, Cambridge, United Kingdom

3. **2.20 Effectiveness of an admission proforma in improving prescription of thromboprophylaxis in acutely ill medical patients. Re-valuating current performance in University Hospital Limerick a decade later**  
Robert Gilligan\(^1\), Michael Watts\(^2\), Eoin Murray\(^1\), Sean Gaughan\(^1\), Kenneth O’Riordan\(^3\), Amber Shrestha\(^4\)  
\(^1\)Intern, University Hospital Limerick, St Nessan’s Road, Dooradoyle, Limerick, V94 F858, Ireland  
\(^2\)Consultant Physician and Adjunct Associate Clinical Professor Graduate Entry Medical School, University Hospital Limerick, St Nessan’s Road, Dooradoyle, Limerick, V94 F858, Ireland  
\(^3\)Medical Senior House Officer, University Hospital Limerick, Limerick, Ireland  
\(^4\)Graduate Entry Medical School, University of Limerick, Castletroy, Limerick, Ireland

4. **2.30 Serial cell free DNA (cfDNA) monitoring in melanoma patients correlates with tumour burden and therapeutic response as assessed by CT scan**  
Michael Itak Ita\(^1\), Jiang Huai Wang\(^2\), Andre Toulouse\(^2\), Cynthia Heffron\(^3\), Derek Power\(^4\), Henry Paul Redmond\(^1\)  
\(^1\)Department of Academic Surgery, Cork University Hospital, Wilton, Cork, Ireland  
\(^2\)Department of Anatomy and Neuroscience, University College Cork, College Road, Cork, T12 K8AF, Ireland  
\(^3\)Department of Pathology, Cork University Hospital, Wilton, Cork, Ireland  
\(^4\)Department of Medical Oncology, Cork University Hospital, Wilton, Cork, Ireland

5. **2.40 A trainee’s experience establishing a porcine ex-vivo lung perfusion model in Ireland**  
Emilie Elizabeth McCormack\(^1\), Grace Hogan\(^1\), Ger Curley\(^1\), Paul McLoughlin\(^1\), Karen Redmond\(^2\)  
\(^1\)School of Medicine, University College Dublin, Belfield, Dublin, D14 Y57, Ireland  
\(^2\)Department of Cardiothoracic Surgery, Mater Misericordiae University Hospital, Eccles Street, Dublin, D07 R2WY, Ireland
6. **2.50 Comprehensive evaluation of a novel biomarker and other biomarkers for appendicitis in adults**
   Mohamed Awad Zarog, Miranda Kiernan, Paul Tibbitts, Gerard John Byrnes, Colin Peirce, John Calvin Coffey
   Department of Surgery, University Hospital Limerick, Limerick, Ireland

7. **3.00 Enhancing anti tumour immune response; The effect of Ionising radiation on Immune checkpoint expression in OE33 cells**
   Noel Edward Donlon, Maria Davern, Andrew Sheppard, Joanne Lysaght, Jacintha O’Sullivan
   Department of Surgery, Trinity Translational Institute, St. James' Hospital, James Street, Dublin, D03 VX82, Ireland

8. **3.10 Performance Indicator of Colonic Intubation: A new key performance indicator for colonoscopies?**
   Ben Creavin, Carolyn Cullinane, Emer O’Connell, Eddie Myers, Brian Waldron
   Department of Surgery, University Hospital Kerry, Ratass, Tralee, Co Kerry, V92 NX94, Ireland

9. **3.20 10 Years of Inguinal lymphadenectomy for metastatic malignant melanoma: A single centre experience**
   Mohammed Abdalla, Zeeshan Razzaq, Mudassar Majeed, Michael Hanrahan Hamid Mustafa, Christopher O’Hare, Peter O’Leary, Fara Hassan Khawaja, Akbar Amin Achakzai, Henry Paul Redmond
   Department of General Surgery, Cork University Hospital, Wilton, Ireland

10. **3.30 Computed tomography measured mesenteric adiposity is associated with diverticulitis**
    Mary McCumiskey, Tara Connelly, Zoya Malik, Rishabh Sehgal, Dara Walsh, Colin Peirce, Gerard J Byrnes, John Calvin Coffey
    Department of Surgery, University Hospital Limerick, St Nessan’s Road, Dooradoyle, Limerick, V94 F858, Ireland

11. **3.40 Insights into faecal incontinence among a healthy population in a tertiary referral centre**
    Colin Sirr, Siobhan Rooney, Amir Samy, Rishabh Sehgal, Aisling Hogan
    1Graduate Entry Medical School, University of Limerick, Castletroy, Limerick, Ireland
    2Department of Surgery, University Hospital Galway, New Castle Road, Galway, Ireland

12. **3.50 Evaluation of the risk factors for venous thromboembolism post splenectomy – A ten year retrospective study in St James’s Hospital**
    Manal Abduljalil, Dearbhla Doherty, Marthinus Dicks, Catherine Flynn, Catherine Maher, Brian Mehigan, Richard Flavin
    1Department of Haematology, St James’s Hospital, James Street, Dublin, D03 R2WY, Ireland
    2HOPE Directorate, St James’s Hospital, James Street, Dublin, D03 R2WY, Ireland
    3Department of Surgery, St James’s Hospital, James Street, Dublin, D03 R2WY, Ireland
    4Department of Pathology, St James’s Hospital, James Street, Dublin, D03 R2WY, Ireland
AB070. 125. Evaluation of a hydrogel scaffold seeded with mature adipocytes for breast reconstruction post-mastectomy

Niamh O’Halloran¹, Eimear Dolan², Michael Kerin¹, Garry Duffy², Aoife Lowery¹

¹Lambe Institute for Translational Research, Discipline of Surgery, ²Discipline of Anatomy, National University of Ireland Galway, Galway, Ireland

Background: Hydrogels are suitable for adipose tissue engineering for breast regeneration due to their ability to mimic native extracellular matrix. The aim of this study was to assess the suitability of adipose tissue seeded hyaluronic acid (HA) hydrogels at varying crosslinking densities and cell loading densities as adjuncts to implant breast reconstruction post-mastectomy.

Methods: One percent and 2% w/v HA at 1× (1 µL/mL H2O2, 0.24 U/mL HRP) and 2× (2 µL/mL H2O2, 0.48 U/mL HRP) crosslinking concentration were loaded with lipoaspirate or lipoaspirate enriched with stromal vascular fraction (SVF) of adipose tissue from female patients. Sedimentation rate of adipocytes within the lipoaspirate, metabolic activity (AlamarBlue), Young’s modulus (compression) and swelling ratio of the hydrogels were assessed. Histology with Oil Red O staining for intracellular lipid was performed. Maximum cellular loading density of 2× hydrogels was assessed.

Results: The sedimentation rate within 1% hydrogels was more rapid than 2% hydrogels. 1× HA adipose loaded hydrogels had a greater swelling ratio than 2× adipose loaded hydrogels. Young’s elastic modulus was higher for 2× compared to 1× hydrogels. Young’s modulus decreased as increasing numbers of cells were loaded onto the hydrogel. There was no significant difference in cell metabolic activity between different cell loading densities. Histology demonstrated positive lipid staining by Oil Red O within the hydrogel.

Conclusions: Hyaluronic acid at a 2× crosslinking density is a promising biomaterial for adipose tissue engineering in breast regeneration.

Keywords: Breast reconstruction; mastectomy; tissue engineering

doi: 10.21037/map.2019.AB070

AB071. 136. Characteristics of the tumour microenvironment affect the expression of inhibitory immune checkpoints on T-cells and oesophageal adenocarcinoma cells

Maria Davern¹, Noel Donlon¹, Andrew Shephard¹, Jamie MacDonald⁴, Emma Foley², John Reynolds², Stephen Maher³, Melissa Conroy¹, Margaret Dunne², Joanne Lysaght¹

¹Cancer Immunology and Immunotherapy Research Group, Department of Surgery, Trinity Translational Medical Institute, St. James's Hospital, Dublin, Ireland; ²Department of Surgery, Trinity College Dublin, St. James's Hospital, Dublin, Ireland; ³Cancer Chemoradiation Research Group, Department of Surgery, Trinity Translational Medical Institute, St. James’s Hospital, Dublin, Ireland; ⁴IMED Oncology, AstraZeneca, Cambridge, UK

Background: This novel study examines the effect of well-known characteristics of the tumour microenvironment including hypoxia and nutrient deprivation on the expression of inhibitory immune checkpoints (IC) on oesophageal adenocarcinoma (OAC) cells to identify potential ICs that could be targeted in OAC as more than two-thirds of patients don’t benefit from chemoradiotherapy (CRT). Importantly the effect of hypoxia and nutrient deprivation on IC expression on T-cells is also examined. Understanding the effect of the tumour microenvironment on IC expression is essential for rationally incorporating immune checkpoint inhibitors (ICIs) into current standards of neoadjuvant care for OAC patients.

Methods: The expression of ICs on activated T-cells and OAC cells cultured separately under conditions of severe hypoxia/normoxia +/- nutrient deprivation (glucose deprivation or glutamine deprivation) was determined by flow cytometry.

Results: Severe hypoxia and glucose deprivation increased the surface expression of PD-1 on OAC cells and decreased the surface expression of PD-1 on live activated T-cells.

Conclusions: The increased expression of PD-1 on OAC cells under severe hypoxic glucose deprived conditions suggests that PD-1 may confer OAC cells with a survival advantage potentially via immune evasion. Therapeutic targeting of PD-1 in OAC may reduce the survival of OAC cells and certainly warrants further investigation. This data offers a starting point for understanding changes in IC expression in the OAC tumour microenvironment which could help guide the appropriate selection of ICIs with current standards of care to identify the best combination regimen for OAC patients.

Keywords: Immune checkpoints; oesophageal adenocarcinoma; hypoxia

doi: 10.21037/map.2019.AB071

AB072. 103. Effectiveness of an admission proforma in improving prescription of thromboprophylaxis in acutely ill medical patients. Re-valuating current performance in University Hospital Limerick a decade later

Robert Gilligan¹, Michael Watts², Eoin Murray¹, Sean Gaughan¹, Kenneth O’Riordan³, Amber Shrestha⁴

¹Intern, Department of Surgery, University Hospital Limerick, Limerick, Ireland; ²Graduate Entry Medical School, University Hospital Limerick, Limerick, Ireland; ³Department of Surgery, University Hospital Limerick, Limerick, Ireland; ⁴Graduate Entry Medical School, University of Limerick, Limerick, Ireland

Background: In 2008, University Hospital Limerick (UHL) conducted an audit showing inadequate rates of thromboprophylaxis amongst the high and very high-risk medical patients. The introduction of a new medical admissions proforma, with a dedicated section to prompt venous thromboembolism (VTE) prophylaxis. This increased rates of thromboprophylaxis prescribed, by 39% in the at most risk patients. This audit is being carried out again, as estimates put mortality in Ireland from VTE at 1,900 lives, annually.

Methods: A cross sectional study was conducted that analysed thromboprophylaxis among medical inpatients in UHL. Data collection was split over two days. In keeping with the previous audits, all patients admitted under medical or the geriatric service was included. Their risk was calculated using the same criteria as the previous audits.

Results: In total 114 patients were assessed. Fourteen patients were excluded. Of the remaining one hundred patients, the results are as follows; 2018 risk stratification, low risk 13%, moderate risk 37%, high risk 24%, very high risk 26%. Rates of thromboprophylaxis; moderate risk 59%, high and very high risk 66%.

Conclusions: The rates of thromboprophylaxis have stayed consistent since the introduction of the admission proforma reminder in 2012. It appears attitudes and knowledge towards thromboprophylaxis have changed and that patients are being given correct thromboprophylaxis. Patients in the higher risk categories are consistently getting covered for VTE, particularly, the high and very high-risk group. Going forward, VTE prophylaxis is a preventable life-threatening condition. We must ensure that adequate standards are not only implemented, but also maintained.

Keywords: Audit; thromboprophylaxis; venous thromboembolism

doi: 10.21037/map.2019.AB072

AB073. 54. Serial cell free DNA (cfDNA) monitoring in melanoma patients correlates with tumour burden and therapeutic response as assessed by CT scan

Michael Ita¹, Jiang Huai Wang¹, Andre Toulouse², Cynthia Heffron³, Derek Power⁴, Henry Paul Redmond¹

¹Department of Academic Surgery, Cork University Hospital, Wilton, Cork, Ireland; ²Department of Anatomy and Neuroscience, University College Cork, Cork, Ireland; ³Department of Pathology; ⁴Department of Medical Oncology, Cork University Hospital, Wilton, Cork, Ireland

Background: The assessment of tumour burden and therapeutic response in melanoma patients is currently undertaken by way of serial lactate dehydrogenase (LDH) level measurements and radiological imaging by CT or PET scan. While both assessment strategies are frequently successful at monitoring disease burden and treatment response, the problem of pseudoprogression increasingly render these methods crude measures of underlying disease status in affected patients. In these contexts, complementary strategies are needed to assess alterations at the molecular level, and to detect the event of genomic evolution as it relates to therapeutic resistance. Cell free DNA (cfDNA) has emerged as an easily accessible biomarker to assess tumour burden and therapeutic response in several malignancies including melanoma.

Methods: We extracted and quantified plasma derived cfDNA from twelve patients with melanoma. Five patients had stage I disease and seven patients had stage IV disease.

Results: Patients with stage IV disease had significantly higher plasma cfDNA levels than patients with stage I melanoma (4,464±461.1 vs. 2,750±250.0 P<0.0158). Positive correlation was found between tumour burden and cfDNA levels in stage IV melanoma patients receiving immunotherapy at baseline (N=7) (r=0.8489, P=0.0157), and at follow up (N=5) (r=0.9704, P=0.0061) assessment. We found positive correlation between variations (the ratio between values at re-assessment for therapeutic response and baseline) of cfDNA levels and tumour burden in stage IV melanoma patients (N=5) (r=0.8918, P=0.0420).

Conclusions: We postulate that a quantitative measure of cfDNA may complement current methods of assessing tumour burden and therapeutic response in stage IV melanoma patients undergoing immunotherapy.

Keywords: Cell free DNA (cfDNA); melanoma; liquid biopsy

doi: 10.21037/map.2019.AB073

AB074. 134. A trainee’s experience establishing a porcine ex-vivo lung perfusion model in Ireland

Emilie Elizabeth McCormack1,2, Grace Hogan1, Ger Curley1, Paul McLoughlin1, Karen Redmond2

1School of Medicine, University College Dublin, Dublin, Ireland; 2Department of Cardiothoracic Surgery, Mater Misericordiae University Hospital, Dublin, Ireland

Background: Porcine isolated lungs are currently the gold standard model for studying human lung diseases. Described here is a junior surgical trainees experience in establishing a porcine ex-vivo lung perfusion (EVLP) model in Ireland. This model was established in conjunction with the Curley laboratory in the Royal College of Surgeons in Ireland (RSCI).

Methods: Prior to undertaking a porcine explant, two human multi-organ retrievals were observed to gain practical knowledge of the procedure. Following this, a porcine explant with the assistance of the professor of thoracic surgery (PTS) was undertaken to establish protocols. Subsequently, three porcine cadavers were used to gain further experience in carrying out this complex procedure. Following these experiments, the PTS observed me in another explant and deemed me to be proficient in retrieving organs of a transplantable quality. Seven porcine lungs, over six months, were then retrieved to optimise the EVLP model on the LS1 circuit (Xvivo, Lund, Sweden).

Results: We report that it takes two observations and four practice retrievals for a junior trainee to become proficient in harvesting porcine lungs. Seven EVLP pilot experiments were all considered successful, however, direct comparisons between these lungs is not possible as they were conducted with different protocols and perfusates due to optimisation.

Conclusions: The overall time span of six months was significantly longer than expected due to unforeseen circumstances such as issues with reagents and the circuit. We propose that other groups establishing a new research model, allow sufficient time for unforeseen events and that a similar protocol could be undertaken by researchers to become proficient in porcine organ retrieval.

Keywords: Trainee; isolated lung perfusion; transplant

doi: 10.21037/map.2019.AB074

AB075. 242. Comprehensive evaluation of a novel biomarker and other biomarkers for appendicitis in adults

Mohamed Awad Zarog, Miranda Kiernan, Paul Tibbitts, Gerard John Byrnes, Colin Peirce, John Calvin Coffey

Department of Surgery, University Hospital Limerick, Limerick, Ireland

Background: Accurate diagnostic biomarkers for acute appendicitis (AA) are lacking. Circulating fibrocytes (CFs) are increased in inflammatory states and have not previously been studied in appendicitis. This study aimed to assess if CF levels are altered in AA, and compared their diagnostic accuracy with white cell count (WCC), C-reactive protein (CRP), neutrophils, lymphocytes, neutrophil-lymphocyte ratio (NLR), monocytes, basophils and eosinophils in the diagnosis of AA in patients presenting with right iliac fossa pain (RIFP).

Methods: A prospective cohort study was carried out between June 2015 and February 2016 at University Hospital Limerick and 95 adults were recruited. Of these, 15 were healthy individuals and 80 were patients admitted with RIFP. Clinical, biochemical and histopathological parameters were recorded. CF levels were determined by dual-staining for CD45 and Col-1 using Fluorescence-Activated Cell Sorting (FACS) and correlated with histopathological diagnoses. A P value of <0.05 was taken as clinically significant.

Results: Forty-six of the 80 patients admitted with RIFP underwent appendectomy, 74% of whom subsequently had histologically confirmed appendicitis. The median levels were significantly elevated in patients with histologically confirmed appendicitis compared with those who had a histologically normal appendix [6.0% (10.1%) vs. 1.7% (2.4%), P<0.01. The diagnostic accuracy of CF in differentiating AA from other causes of RIFP was better than that of the WCC, CRP, neutrophils, NLR and monocytes as reflected in areas under the curve (AUC) of 0.70, 0.68, 0.65, 0.69, 0.69 and 0.67 respectively.

Conclusions: Circulating fibrocyte levels are elevated in AA and are a more sensitive diagnostic biomarker in this study than the commonly used WCC and CRP levels. The use of CF levels in clinical practice should be further explored in order to potentially reduce the negative appendicectomy rate in patients presenting with RIFP.

Keywords: Trainee; isolated lung perfusion; transplant

doi: 10.21037/map.2019.AB075

AB076. 199. Enhancing anti-tumour immune response: the effect of Ionising radiation on Immune checkpoint expression in OE33 cells

Noel Edward Donlon, Maria Davern, Andrew Sheppard, Joanne Lysaght, Jacintha O’Sullivan, John Reynolds

Department of Surgery, Trinity Translational Institute, St. James's Hospital, Dublin, Ireland

Background: The use of Radiotherapy (RT) as definitive or palliative treatment for some malignancies has been well established. The possibility of using RT in combination with immunotherapies has gained attention. In addition to control of tumour growth, RT exerts a range of immunomodulatory effects on the tumour and its microenvironment. These serve to prime the tumour for an immune-mediated response. This has led to a renewed focus on the possibility of synergy with older anti-cancer therapies such as radiation therapy.

Methods: We used an isogenic model of oesophageal adenocarcinoma radio-resistance developed in house and fully characterised, with cells irradiated at 3 separate timepoints (24 h, 48h and sequential dosing of 2 Gy daily to a total of 10 Gy). The expression of PD-1, and its ligands PD-L1, PD-L2 were assessed by flow cytometry.

Results: In all three treatment arms, immune checkpoint expression were increased with exponentially higher levels of checkpoints expressed at 10 and 20 Gy. PD-L2 increased significantly (P<0.02) in the 10 Gy sequential dosing treatment arm and again was statistically significant in the 10 Gy treatment cohort in the 48hr post radiotherapy group after flow cytometry analysis.

Conclusions: This study identifies possible avenues for potentiating the anti-tumour effects of the host immune system. It identifies that Radiotherapy increase checkpoint inhibitor expression on OE33 cells and as such identifies a starting point for potentially combining immunotherapy with radiotherapy in the treatment of Oesophageal Carcinoma.

Keywords: Immune checkpoint inhibitors; oesophageal carcinoma; radiotherapy

doi: 10.21037/map.2019.AB076

AB077. 174. Performance indicator of colonic intubation: a new key performance indicator for colonoscopies?

Ben Creavin, Carolyn Cullinane, Emer O’Connell, Eddie Myers, Brian Waldron

Department of Surgery, University Hospital Kerry, Ratass, Tralee, Co Kerry, Ireland

Background: Colonoscopy is the gold standard investigation for the colon with caecal intubation being an established and desired key performance indicator. However, intubation may require increased sedation and patient discomfort which can lead to complications. This study aims to present an alternative composite score to aid in safe and effective intubation of the caecum.

Methods: Data from all colonoscopies performed during 2017 was analysed. Performance indicator of colonic intubation (PICI) was defined as any procedure achieving caecal intubation with \( \leq 3 \) mg midazolam and a patient comfort score of 1–3/5. Univariate and multivariate logistic regression was used to identify associations between PICI and patient, colonoscopist and diagnostic factors. Obstructing lesions were excluded.

Results: A total of 2,417 colonoscopies were performed of which PICI was achieved in 1,301 (53.8%). Caecal intubation was achieved in 93.5% (n=2,259). A total of 1,399 (57.9%) colonoscopies were performed by consultants/ANPs with 26.6% of patients undergoing surveillance/screening colonoscopies. Polyps were detected in 36.9% of colonoscopies. Younger age (P=0.0001), consultant/ANP operator (P=0.0001) and surveillance/screening colonoscopies (P=0.0001) were associated with achieving a PICI on univariate analysis. Younger age (P=0.0001) and consultant/ANP operator (P=0.001) were independent factors associated with achieving a PICI on multivariate analysis. The likelihood of detecting polyps was associated with a PICI (OR =1.4, P=0.0001).

Conclusions: PICI may identify endoscopist who may require additional training and could be used as a benchmark for training and quality improvement. Identifying pathology on colonoscopies is improved when a PICI is achieved.

Keywords: Colonoscopy, performance indicator of colonic intubation, key performance indicator, training

doi: 10.21037/map.2019.AB077

AB078. 86. Ten years of inguinal lymphadenectomy for metastatic malignant melanoma: a single centre experience

Mohammed Abdalla, Zeeshan Razzaq, Mudassar Majeed, Michael Hanrahan, Hamid Mustafa, Christopher O’Hare, Peter O’Leary, Fara Hassan Khawaja, Akbar Amin Achakzai, Henry Paul Redmond

Background: Malignant Melanoma is the most aggressive form of skin cancer. Patients who present with a palpable lymph node metastasis in the groin area are a subgroup with a poor prognosis; at 5 years post diagnosis only 12–52% are alive. The only curative treatment for palpable or biopsy (fine needle aspiration cytology) (FNAC) or Sentinel lymph node) proven involved groin lymph nodes in the setting of melanoma is inguinal lymphadenecomy (IL). The aim of this retrospective study was to assess the demographics, radiological and pathological diagnosis, as well as patients’ outcomes undergoing IL for melanoma.

Methods: All cases of IL done at Cork University Hospital for malignant melanoma between 1/1/2008 and 31/12/2017 were retrospectively reviewed. Patient demographics, diagnosis, surgical approach, length of hospital stay, histology and all documented complications were evaluated.

Results: A total of 45 surgeries were undertaken, 66.6% were women. Mean age was 60 years with a range of 27–94 years. Of all cases 51% were on the left groin. Number of lymph nodes (LN) removed ranged between 1–22, 53.3% of patients had LNs between 11–20. Tumour, node and metastases (TNM) Status showed 37% T4, 38% N1 and 28% with distant metastasis. The number of positive LNs ranged between 0–14, of them 86.6% ranged between 0–5. Surgical approach was mostly supra & inguinal lymphadenectomy for the majority of cases. 33% of patients had extra nodal extensions requiring adjuvant radiotherapy.

Conclusions: Inguinal lymphadenectomy is the only curative treatment for malignant melanoma involving groin lymph nodes. It is a safe procedure with good oncological outcomes and minimal complications.

Keywords: Groin dissection; inguinal lymphadenectomy; malignant melanoma

doi: 10.21037/map.2019.AB078

**AB079. 190. Computed tomography measured mesenteric adiposity is associated with diverticulitis**

Mary McCumiskey, Tara Connelly, Zoya Malik, Rishabh Sehgal, Dara Walsh, Colin Peirce, Gerard J. Byrnes, John Calvin Coffey

Department of Surgery, University Hospital Limerick, Dooradoyle, Limerick, Ireland

**Background:** The mesentery contains lymphatics, adipocytes and fibroblasts. Additionally, it secretes immunoregulatory molecular messengers including cytokines, chemokines and neuropeptides. Despite a high prevalence of diverticulosis in the general population, not all individuals with diverticulosis develop diverticulitis. Although various genetic and environmental factors have been suggested, it is unknown why a cohort develops acute inflammation/diverticulitis. Thus, we aim to determine the relationship between mesenteric adiposity and acute diverticulitis.

**Methods:** Abdominal and pelvic computed tomography (CT) examinations were individually examined for the presence of diverticulitis, diverticulosis or no intraabdominal pathology (Controls). Subcutaneous and Mesenteric adiposity measurements were obtained at the L4–5 vertebral space using McKesson Study Share and Horos. SPSS was used for statistical evaluation. Values are provided with standard deviation.

**Results:** 115 diverticulitis (28 complicated, 87 uncomplicated) and 23 Control CTs were analysed. Compared to Controls, the entire and uncomplicated diverticulitis cohorts had a higher subcutaneous: left colon mesenteric adiposity ratio (P=0.004 and 0.003, Table 1). On sub-analysis, complicated diverticulitis patients had a lower subcutaneous: mesenteric adiposity ratio when compared to the uncomplicated diverticulitis (P=0.034).

**Conclusions:** Diverticulitis patients have a decreased volume of left colonic mesenteric adiposity when compared to non-diverticulitis patients. Complicated diverticulitis patients have a decreased amount of overall mesenteric adiposity when compared to uncomplicated diverticulitis patients. This difference suggests an anatomical basis for an impaired ability to mount an immune response to pathogens. This may result in the inflammatory process of diverticulitis. Further studies are required to confirm this data.

**Keywords:** Diverticulitis; diverticulosis; mesenteric adiposity

doi: 10.21037/map.2019.AB079

**Cite this abstract as:** McCumiskey M, Connelly T, Malik Z, Sehgal R, Walsh D, Peirce C, Byrnes GJ, Coffey JC. Computed tomography measured mesenteric adiposity is associated with diverticulitis. Mesentery Peritoneum 2019;3:AB079.
AB080. 15. Insights into faecal incontinence among a healthy population in a tertiary referral centre

Colin Sirr¹, Siobhan Rooney², Amir Samy², Rishabh Sehgal², Aisling Hogan²

¹Graduate Entry Medical School, University of Limerick, Castletroy, Limerick, Ireland; ²Department of Surgery, University Hospital Galway, Galway, Ireland

Background: Faecal incontinence (FI) is the recurrent involuntary loss of faeces. It is a taboo subject associated with reduced quality of life (QoL). Common risk factors for FI include damaged pudendal nerve or sphincter complex from prior obstetric trauma or anal surgery. FI is under reported and under diagnosed due to patients’ reluctance to voluntarily discuss their symptoms with healthcare professionals. The aim of the study was to provide insights into FI among the population attending University Hospital Galway (UHG).

Methods: A survey was conducted between May-August 2018. Staff members and patients >18 years were recruited. The Rome IV criteria for FI was utilized. Datapoints included demographics, co-morbidities, FI risk-factors, surgical/obstetric history. FI severity was determined by the Wexner Continence Scale.

Results: Two-hundred participants [female/male 124/76, median age 47 years (18–86 years)] were enrolled. Overall prevalence of FI was 31.5% (63/200). Eighty-one (40.5%) experienced some form of bowel dysfunction. Of the 81, 45 (55.5%) had discussed their FI symptoms with a healthcare professional. Seven percent (n=14) had severe-incontinence, 9% (n=18) had moderate-incontinence and 16% (n=31) had mild-incontinence. The FI cohort had significantly greater incidence of IBD Inflammatory Bowel Disease (IBD), Irritable Bowel Syndrome (IBS) and previous bowel surgery (P<0.05).

Conclusions: Improvements in social awareness and knowledge regarding FI reporting and appropriate referral pathways is essential to counter social stigma and improve the lives of FI patients.

Keywords: Faecal incontinence; Rome IV criteria; Wexner Continence scale

doi: 10.21037/map.2019.AB080

AB081. 236. Evaluation of the risk factors for venous thromboembolism post splenectomy—a 10-year retrospective study in St. James’s Hospital

Manal Abduljalil1, Dearbha Doherty1, Marthinus Dicks1, Catherine Flynn1, Catherine Maher2, Brian Mehigan3, Richard Flavin4

1Department of Haematology, 2HOPE Directorate, 3Department of Surgery, 4Department of Pathology, St. James's Hospital, Dublin, Ireland

Background: Splenectomy is a surgical intervention for a variety of indications. Complications of this procedure include venous thromboembolism (VTE) with reported incidence 6–11%. The main objective of the study was to evaluate the incidence of VTE post splenectomy and to identify the peri-operative risk factors. Local compliance with post-splenectomy prophylactic antibiotics and vaccination protocols were also assessed.

Methods: We conducted a retrospective observational study. All patients who had a splenectomy in St James's Hospital between January 2007 and June 2017 were included and reviewed. Statistical analysis was carried out using SPSS statistical package.

Results: 85 patients were involved in the study. The main indications for splenectomy were benign haematology, malignant haematology, solid tumours, traumatic and spontaneous rupture. 6/85 patients developed VTE (7.06%). High BMI ≥30 was associated with increased risk of VTE (P=0.007), while the use of post-operative prophylactic anticoagulation was associated with reduced risk (P=0.005). Other factors including age >50 years, female gender, presence of active malignancy and splenomegaly were associated with increased VTE risk with no statistical significance. All VTE's occurred in elective versus emergency splenectomy. Laparoscopic splenectomy was associated with higher risk of VTE than open splenectomy. 97% of patients were prescribed prophylactic antibiotics on discharge, but only 88% had received recommended vaccinations.

Conclusions: Our data showed that BMI ≥30 was associated with a statistically significant increased risk of VTE, while the use of prophylactic anticoagulation was associated with reduced risk. Further prospective studies with larger samples are warranted and a splenectomy care plan may be helpful.

Keywords: Peri-operative complications; splenectomy; venous thromboembolism

doi: 10.21037/map.2019.AB081