feeling that their expectations had been met. In addition, fourteen patients (82.4%) had improved QoL post-procedure, with two (11.8%) experiencing worse QoL.

Conclusions: This audit cycle has demonstrated improvements in patient satisfaction and QoL post-sclerotherapy, following concerted changes in clinical practice, both in terms of improved patient education, as well as more aggressive treatment and careful follow-up of patients.

GI and hepatobiliary

P-133 Pictorial review of ciliated foregut cyst of the liver

Deepak Pai[1]; Ajay Dabra; Hussein Hassan; Chaitanya Gupta
[1]Scunthorpe General Hospital

Objective: Pictorial review of ciliated foregut cysts of the liver

Content: Ciliated hepatic foregut cysts are rare congenital cysts of the liver. These are commonly asymptomatic and are found incidentally(45%). Sometimes these can cause vague upper abdominal discomfort. These are usually located in median segments of the liver in segments, IV, V and VIII. These have variable imaging appearances depending on their content. Usually high on T2 and mild to variable on T1. These do not show enhancement. Possibility of maligant transformation and diagnostic difficulty makes them important and challenging.

Relevance/impact: Since these are incidental, they can pose challenge when the imaging is performed for staging of various malignancies. Typical location of these cysts in the superficial part of segment IV of the liver, lack of enhancement and variable signal on T1 can make them identifiable and differentiate from sinister cystic lesions.

Outcome: We would like to present the four cases we came across in our practice during the last five years. These were challenging initially but with the knowledge of their typical imaging appearnces we could differentiate them from metastases or other sinister liver lesions.

Conclusion: Since the ciliated foregut cysts of the liver could potentially harbor squamous cell carcinoma(4.4%) these should be recognised from other cystic lesions. Their typical location and imaging features could help in suspecting and identifying them.

P-134 Diagnostic accuracy and complementary role of barium swallows in the workup for oesophageal cancer

Evgenia Efthymiou[1]; Cheng Xie[2]; Peter Cox[2]; Desmond Cummings[2]; Horace D'Costa[2]
[1]National and Kapodistrian University of Athens, Greece; [2]John Radcliffe Hospital, Oxford University Hospitals NHS Trust

Aims/objectives: The incidence of oesophageal cancer is on the rise and endoscopy is the preferred first line investigation. However, for patients presenting with non-specific upper oesophageal symptoms barium swallows are frequently performed to exclude malignancy. There are no current updates on the diagnostic accuracy of oesophageal cancer detection at barium swallow. This study evaluates the diagnostic accuracy of barium swallows in detecting oesophageal cancer, and its complementary role in the workup for suspected malignancy.

Content:A presentation of findings of 200 consecutive barium swallows with clinical suspicion of oesophageal cancer. Further discussion of diagnostic accuracy of cancer detection & aid to CT.

Relevance/impact: To provide an update of the diagnostic accuracy and contribution of barium swallow in the detection of oesophageal malignancy in modern radiology.

Outcomes: 22 (11%) cases of cancer were identified at barium swallow. 1 case was false positive. This resulted in a diagnostic accuracy and diagnostic yield of 95.4% (21/22) and 10.5% (21/200) respectively. 25.5% (51/200) were normal and 63.5% (127/200) benign pathology. Majority of the benign cases (97 cases, 48.5%) were oesophageal dysmotility. Oesophageal web, hiatus hernia, pouch, achalasia and Schatzki ring were also noted.

Discussion: Barium swallows showed high diagnostic accuracy but low diagnostic yield, which could reflect that moderate to high risk patients have been referred for endoscopy as their first-line investigation. From the 21 positive cases, barium swallows played important part in the diagnosis and specific cases will be further discussed.

P-135 Percutanous transperitoneal insertion of a colonic stent

Joseph Spiking; Claire Elwood; Charles Wetton; Christopher Wright; Aidan Shaw; Paul Ignotus
Maidstone and Tunbridge Wells NHS Trust

Principles: Colonic stenting is a widely accepted procedure both for palliation and temporising of obstructing colonic neoplasms. Proximal colonic lesions are technically harder to treat, particularly by radiologists. Here we demonstrate the feasibility and safety of a percutaneous transperitoneal approach to colonic stenting along with a pictorial illustration of the technique.

A 92 year old man with an partially obstructing left transverse colonic tumour was admitted. He was reasonably fit but had declined both an attempt at curative surgery and a colostomy as well as conventional transanal stent placement.

After appropriate consent and a planning CT scan, the procedure was performed in the fluoroscopy suite. The transverse colon was fixed to the anterior abdominal wall with a three point colopexy using gastropexy suture anchors, securing access to the colon 10cm proximal to the malignant stricture. A 7Fr vascular sheath was placed in the centre of the triangle. The tumour was then crossed with a catheter/wire combination and a colonic stent deployed via an 11Fr vascular sheath.

The procedure was straightforward and uncomplicated. The procedure time was 30 minutes. The sheath was removed and the colopexy sutures cut at 7 days. He remains well at home and symptom free 3 months post procedure.

Educational value: Here we report a technically successful percutaneous transperitoneal placement of a colonic stent. We feel that this technique is safe and easy and may expand the cohort of patients in whom conventional transanal stenting has failed or deemed anatomically unsuitable.

P-136 A pictorial exhibit demonstrating diagnostic value of using high iodine density, oral contrast material for computed tomography of the abdomen and pelvis

Najeeb Ahmed; Hiten Joshi; Yassir Al-Radhi; Abdul Razack
Hull & East Yorkshire NHS Trust

Aim: To demonstrate incremental diagnostic value of using high iodine density(HD) oral contrast material for Computed Tomography(CT) of the abdomen and pelvis particularly in the post-operative setting and in selected cases of abdominopelvic trauma or suspected perforation.

Contents: With the aid of high quality images from selected cases, we endeavour to show the increase in diagnostic efficacy of CT using HD oral contrast material (Iopamidol 300 mg iodine/ml, 100ml diluted in 400mls of water) in comparison to conventional regimen (Urograffin 146 mg iodine/ml, 30 mls in 800 mls of water) and will reflect on how this technique significantly affected patient management.

Relevance/impact: Our presentation seeks to strengthen evidence that this regimen is technically feasible and enables confident interpretation of scans in selected cases.

Outcomes/discussion: Oral contrast at dilutions of 2-5% is traditionally used to outline the alimentary tract in abdominal CT scans. In this concentration, it is sometimes not dense enough to enable confident localisation outside the lumen, particularly in the post-operative setting where radio-opaque surgical material and presence of free fluid may hamper assessment. In our cohort of patients, HD contrast significantly contributed to correct diagnosis, for example confirming post-operative enteral leaks not visible on prior studies and demonstrating transmucosal tear in the duodenum in a patient with blunt abdominal trauma. We did not notice any detrimental features with HD contrast, for example there was no significant beam hardening artefact in any case. We hope that this exhibit will contribute to more widespread acceptability of this technique.

P-137 Using ultrasound to detect a dilated biliary tree - how good are we?

David Gent; Sonali Limdi
The Pennine Acute Trust

Aims/objectives: We assessed the quality of abdominal ultrasonography for detecting a dilated extra hepatic biliary tree in patients presenting to a DGH with various abdominal complaints. Magnetic Resonance

Cholangiopancreatography (MRCP) was used as the gold standard investigation of biliary tract dilatation. The results were audited against the Royal College of Radiologists standards.

Content: Through identifying MRCP reports of abnormally dilated biliary trees with accompanying abdominal ultrasound reports we were able to assess the positive predictive value of abdominal ultrasound. We present the results here.

Relevance/impact: Compared to MRCP, abdominal ultrasound is a cheaper and less invasive investigation. It is important for abdominal ultrasound to be accurate as this determines the course of further imaging and interventions for the patient.

Outcomes: We identified 102 MRCP reports of an abnormally dilated biliary tree with an accompanying abdominal ultrasound report over a 12 month period. Only 73% (n=74) of dilated biliary trees were identified on ultrasound prior to MRCP, 85% (n=87) of ultrasound reports had a specific comment pertaining to the presence or absence of a dilated biliary tree and only 45% (n=33) of reports recommended further imaging where the ultrasound was equivocal.

Discussion:A number of factors may have contributed to the poor results including patient obesity making it difficult to identify the biliary tree and lack of clinical information, such as whether the patient has obstructive liver function tests, making it difficult to recommend further imaging.

P-138 Audit on the validity of MRCP requests (May-June 2015)

Abeeku Hammond; Madhu Dutta; Eilis Macloughlin
Royal Oldham Hospital

Introduction: Gall stones and common bile duct pathologies although mostly asymptomatic accounts for a huge chunk of NHS expenditures. About 10-15% adult population in UK have gall stones. This re-audit aimed at finding out whether MRCP requests criteria met the 100% recommendation made by the initial audit and also to find out if the other recommendations were adhered to.

Methods: Retrospectively, MRCP request between the months of 1st May 2015 and 30th June 2015 was collected and various means was used to validate the data. Data was analysed using Microsoft excel. Patient's details anonymised to ensure confidentiality.

Results: MRCP request has seen a step ladder rise at Pennine Acute Hospital Trust since 2011. Total number of 143 patients formed the cohort, and the median and mean age was 59 for the cohort. Rochdale Infirmary had the highest referral in 2015 (40%) as compared to 2014 where they had the least (10%). North Manchester General hospital had the second highest referral (36%). 44% of the request was invalid as compared to 2014 (6.67%). Abnormal LFT's was the main reason for MRCP request in both 2014 (31.67%) and 2015 (41%). Rochdale Infirmary (46%) had the highest number of Invalid request followed by North Manchester (29%) and Royal Oldham (25%).

Conclusion: Although MRCP is an essential tool in diagnosing gall stones and common bile duct pathologies, excessive request without proper clinical bases depletes already the scarce resources of NHS.

P-139 3T MRI for demonstrating hepatobiliary changes in opisthorchiasis and cholangiocarcinoma: A longitudinal study in a hamster model

Petcharakorn Hanpanich; Sonchai Pinlaor; Puangrat Yongvanit Yongvanit; Chawalit Pairojkul Pairojkul; Eimorn Mairiang Mairiang
Khon Kaen University, Thailand

Introduction: Opisthorchiasis caused by Opisthorchis viverrini remains a major public health problem in Thailand and neighboring countries. Most people with opisthorchiasis show no symptoms in an early stage.

Objective: To compare the hepatobiliary changes between opisthorchiasis and cholangiocarcinoma for a long-term study using 3T MRI in a hamster model.

Methods: Four groups of hamsters were normal control (n=5), Opisthorchis viverrini (OV) (n=10), N-nitrosodimethylamine (NN) (n=10) and O. viverrini combined with NDMA (ON) (n=10). Each hamster underwent MRI scan during the 1th to 8th month. In the 8th month, all animals were scanned and euthanized for histological study.

Results: In the normal control group, the liver's architecture was no mass or bile duct dilatation. Liver tumors were found in 2 of 10 hamsters in the NN group with no fibrosis or bile duct dilatation. The OV and ON group showed the degree of inflammation, fibrosis, and dilatation of intra- and extra-hepatic ducts increasing with time in the bile ducts of the liver in T2 weighted with fat suppression images. there was no detectable cholangiocarcinoma (CCA) in the OV group. For ON group, there was not only amounts of intrahepatic bile duct fibrosis and dilatation, extra-hepatic duct increase found but also some hepatobiliary pathological changes such as cysts, abscesses, and CCA (3 of 10).

Conclusions: The advantages of MRI provide multi planar scan, high resolution and ability to detect pathological changes. The applications in animal model with MRI can help to detect the pathological changes, follow up and the treatment without sacrificing animals.

P-140 Diffusion weighted imaging as a screening tool in the detection of pancreatic neuroendocrine tumours in patients with cancer syndromes

Carys Elin Jenkins; Wiliam Rhodri Thomas; Craig Rheynallt Parry; Rwth Ellis Owen
Cardiff and Vale NHS Trust

Aims/objectives: Using cases from our tertiary referral centre:
- To illustrate the MRI features of early neuroendocrine tumours with a focus on DWI
- To explore the possibility of using DWI as the primary sequence in the surveillance of patients with familial cancer syndromes.
- To address the clinical implications of very early (<2cm) tumour detection; surveillance vs. surgery a shortcoming in the guidelines

Content/organisation: Pancreatic neuroendocrine tumours and their predisposing syndromes
A brief review of sequences and techniques
Imaging feature of early tumours with a focus on DWI
Relevant literature review will be provided, where necessary

Conclusion: Improved scanning techniques have led to the detection of very early neuroendocrine tumours. This poses a clinical dilemma in the management of this particular cohort of patients; a consensus needs to be reached as how best to deal with this conundrum. DWI could be used as the primary rather than a complementary sequence in the surveillance of patients with familial cancer syndromes. This would lead to reduced scanning time and cost.

P-141 Missed rates of colorectal cancer

Jenna Millington[1]; Emily Clarke; Kathy Woolson; Maria Saunders; Magdelena Metzner; Mac Armstrong
[1]*MDHU Derriford*

Aim: To find the number of colorectal cancers missed at initial investigation amongst patients subsequently diagnosed with colorectal cancer in 2014.

Background: Colonoscopy is the gold standard test for colorectal cancer but increasing numbers of computed tomography colonography (CTC) are carried out as an alternative.

Method: We identified all colorectal cancers diagnosed in 2014 and reviewed records to look for any endoscopic investigations or cross sectional imaging in the previous 2 years, any CT imaging was reviewed by a consultant gastrointestinal radiologist.

Results: 226 patients were included.
27 cancers were identified by CTC. No interval cancers were found in patients who had a CTC in the previous two years.
1.3% (3) of patients who had a colonoscopy within 2 years of their diagnosis went on to develop an interval cancer compared to 4.8% (11) of patients who underwent other cross-sectional imaging.

Discussion: There are multiple reasons why colonoscopy may have missed cancers which will be discussed.
There were no patients who developed an interval cancer following a CTC which could suggest that CTC is a more sensitive test for colorectal cancer however there are multiple confounding factors to be discussed.

Several of the CTs were performed to follow up other malignancies, confirming that CT is an inappropriate test for colorectal cancer.

P-142 Abdominal moans and groans: Radiological and surgical atlas of the pearls and pitfalls of Crohn's Disease

Athar Barakat[1]; Sumita Chawla[1]; James Arthur[2]; Ashok Katti[1]; John Mullany[1]

[1]Department of Radiology, Aintree University Hospital, Liverpool; [2]Department of Colorectal Surgery, Aintree University Hospital, Liverpool

Aims/objectives: To emphasise in pictorial fashion, the pearls and pitfalls in imaging, diagnostic and surgical challenges faced in Crohn's Disease.

To illustrate the characteristic findings of Crohn's Disease including active and chronic bowel disease as well as its complications relevant to disease activity.

Content: Crohn's Disease is an inflammatory bowel disease characterized by skip lesions usually with extra-intestinal manifestations. It can affect any part of the gastrointestinal tract and can prove to be a diagnostic conundrum for the Radiologist and Surgeon.

Through this pictorial journey we highlight a comprehensive review of the imaging and surgical findings in the diagnosis and subsequent management of Crohn's Disease.

Relevance/impact: Crohn's Disease is common in North Europe and North America showing no gender predilection and typically starts in the teens to twenties. It can lead to poor quality of life and disabling complications. Early recognition using cross-sectional imaging, followed by appropriate timely treatment can reduce the risk of complications.

Outcomes: We hope to avail the reader in recognising common and important radiological presentations of Crohn's Disease using different imaging modalities, hence allowing appropriate surgical treatment to be subsequently carried out in those required cases.

The purpose of this exhibit is also to illustrate the value of joint Radiological and Surgical management imperative for high quality patient care.

Discussion: Through our imaging bank and surgical management review, we aim to have explained the pertinent facts of Crohn's Disease, particularly important in the clinical context of the patient to help avoid misdiagnosis and mismanagement.

P-143 Our experience of ultrasound guided peritoneal biopsy

Sharabh Sinha; Ragu Vinayaga

Sheffield Teaching Hospitals NHS Trust

Introduction: The differential diagnosis of ascites/peritoneal lesion includes malignancy, infection or inflammatory pathology. When patients with a known cancer are found to have a new peritoneal lesion the possibility of recurrence versus new malignancy needs to be investigated.

Aim: Can ultrasound guided peritoneal biopsy aid histopathological diagnosis in healthy and cancer patients when the origin of ascites and peritoneal lesion is unclear?

Method: A retrospective review of CT/US abdomen/pelvis, pathological report of US guided peritoneal biopsy sample and patient discharge summary.

Results: Patients referred for biopsy with ascites (52/58) or incidental peritoneal lesion on CT. Histopathological diagnostic; accuracy rate, sensitivity, specificity, PPV and NPV are 97%, 96%, 50%, 98% and 67%. When the diagnosis is ovarian cancer or primary peritoneal cancer, pre-biopsy CT accuracy is 78.57% and 0/11 respectively. Ten patients with a known malignancy underwent US guided biopsy of a new peritoneal lesion. 7 were diagnosed with a second malignancy.

Discussion: We found ovarian and primary peritoneal cancer have non-specific, but similar clinical and CT features. Histopathological analysis of a peritoneal lesion can aid diagnosis of ovarian and primary peritoneal cancer. This is important as the prognosis differs.

CT features of a lone peritoneal lesion are inaccurate on their own to rule out diagnosis of a new malignancy in those patients with a known cancer. Tissue diagnosis is vital to differentiate benign pathology, recurrence or a new malignancy.

Conclusion: US guided biopsy of peritoneal lesion is accurate and safe (1 minor complication).

Uroradiology, gynaecology and obstetrics

P-144 Influencing factors for false negative rate of renal calculi detection on US vs CTKUB

Rumman Ahmed; Carla Goncalves; Ali Zaman; Sana Ihsan; Alan Tan; Peter Pietrzak; Peter Acher; Sidath Liyanage
Southend University Hospital NHS foundation Trust

Objectives: Evaluate factors associated with false negatives (FNs) in detecting renal calculi on ultrasound (US) compared with non-enhanced CT KUB to suggest possible ways of technique optimisation.

Content: Retrospective study of all US studies conducted between 01/01/2014 and 31/03/2015 with subsequent non-enhanced CTKUB (reference standard) within a year at our institution.

Outcomes: 220 patients were identified in total, 126 of which had calculi reported on CTKUB. Of these 126, renal calculi were missed on US in 32 patients (25%, False Negative Rate). The majority (75%) of calculi missed on US had a reported size of less than 10 mm (p-value = 0.0047). Operator (Sonographers vs Radiology Consultants vs Radiology Registrars), patient's age, patient's gender, and time between US and CTKUB were not statistically significant contributors to FNs.

Discussion: Our results show that US is suboptimal for identifying renal calculi, particularly those below 10mm in size. However, this should be weighed up against the radiation burden from CTKUB, especially when investigating young patients. Our data demonstrates that all operators may benefit in being made aware of potential limitations of US and potential pitfalls such as high echogenicity of renal sinus fat masking renal calculi.

Careful and thorough ultrasound imaging looking for features such as posterior acoustic shadowing and 'twinkling' artefact may be helpful. Other potential contributing factors to FNs not included in this study are patient's body habitus or cooperation, which could serve as an indicator for when CTKUB could be more appropriate.

P-145 Saving the graft: Ultrasonography appearances of renal transplant complications

Kelsey Watt; Yaman Adi; Sean Tenant; Peter Cantin
Plymouth Hospitals NHS Trust

Aims: To review the ultrasonographic appearances of early and late renal transplantation complications.

Relevance: Renal transplantation is increasingly used as the primary therapy for end-stage renal disease. Due to its increasing frequency, increased survival rates, and associated complications, renal transplant ultrasound examinations make up an increasing part of on-call work. Timely management of complications is essential; radiologists performing the examination therefore require a thorough understanding of the associated anatomy, normal surgical sequelae and ultrasonographic appearances of these complications.

Content: In this pictorial review we present the anatomy of a healthy renal graft, review the normal post-surgical sequelae, and present ultrasonographic features of complications. We have reviewed all ultrasound examinations of renal transplants in the period November 2013 to November 2015 inclusive in a single tertiary referral centre. In current literature, complications may be considered within five categories: Perinephric fluid collections, including haematomas, seromas, urinomas, lymphocoeles or abscesses; diminished renal function due to acute tubular necrosis or rejection; vascular complications including arteriovenous fistulas, pseudoaneurysms and thrombosis or stenosis of renal arteries and veins; abnormalities of the collecting system; abnormalities of the renal parenchyma. Many patients within this cohort had repeat scans documenting the development of complications within a matter of only hours or days between examinations.

Discussion: Ultrasound is a non-invasive, readily available examination, which plays a critical role in the follow-up of renal transplantation. Recognising the appearances of complications allows early communication with clinical teams and ensures prompt intervention to ensure graft success.