



**Conclusion:** The new split-bolus protocol has shown overall improved opacification of the renal collecting system when compared to the original protocol. This is particularly evident when assessing the distal ureter.

Van Der Molen AJ, Cowan NC, Mueller-Lisse UG et al (2008). CT urography: definition, indications and techniques. A guideline for clinical practice. Eur Radiol 18: 4-17



## GI AND HEPATOBILIARY POSTER PRESENTATIONS

### P028 Metastatic rectal cancer and a case of necrotising fasciitis

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**Background:** Necrotising fasciitis has a high mortality and is fatal if left untreated<sup>1</sup>, the most common clinical features are: pain, erythema and swelling<sup>2</sup>. Cases linked to perforated rectal cancers are rare. In this case, the patient had undergone a laparoscopic defunctioning colostomy two months before presentation. Imaging is often conclusive with visualisation of surgical emphysema. Purpose: To illustrate the appearance of perineal necrotising fasciitis on CT images, relate this to diagnostic pelvic MRI images to inform differential diagnosis and management options. Summary: A 65 year old gentleman was diagnosed with a T4N2M1 moderately differentiated adenocarcinoma of the rectum, which was 9cm in axial diameter with multiple pathologically involved pelvic lymph nodes. He presented with bowel obstruction and underwent a laparoscopic loop defunctioning colostomy on 17/1/20. Following 2 cycles of FOLFOX chemotherapy he was admitted to the ward with signs of shock: tachycardia and hypotension, with diffuse pain in his buttocks and a swollen scrotum. On examination he had a distended, erythematous scrotum with necrotic skin in the perineum. Investigations showed a raised CRP (415mg/L) with a neutrophil count of 2.1 (10<sup>9</sup>/L). A CT Abdomen and Pelvis confirmed a localised perforation of the rectal tumour with soft tissue emphysema within the scrotum, anterior abdominal wall and perineum. He was treated with broad spectrum antibiotics. Surgeons confirmed necrotising fasciitis of the perineum and he was not fit enough for extensive debridement.



Fig 1: CT axial image confirming



Fig 2: MRI axial image at surgical physsema. diagnosis showing a T4N2 rectal carcinoma.

1. Morais, H, Neves, J, Ribeiro H et al. (2017). Case series of Fournier's gangrene: Affected body surface area - The underestimated prognostic factor. Annals of Medicine and Surgery. 16, pp.19-22. 2. Goh, T, Goh, L, Ang C & Wong, C. (2013). Early diagnosis of necrotizing fasciitis. British Journal of Surgery. 101(1), e119-e125.

### P030 The role of radiotherapy in radical treatment of rectal cancer during the COVID-19 pandemic

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**Background:** The COVID-19 pandemic has resulted in immeasurable barriers to healthcare provision. Radical treatment for rectal cancers was affected with cessation of elective operations and measures introduced to reduce patient visits to hospital. Guidance produced by The Royal College of Radiologists (RCR) advised short-course preoperative radiotherapy (SCPRT) to be used to either bridge the gap to surgery or instead of long-course chemoradiotherapy (LCCRT)[1]. This retrospective study reviewed subsequent outcomes.

**Method:** Patients who received radiotherapy to their rectal tumour from April to July 2020 were reviewed retrospectively at a single centre. Patient demographics, tumour stage, dose/fractionation of radiotherapy and post-operative histology were recorded. They were separated into sub-groups based on their treatment, and whether this was altered due to the pandemic.

**Results:** 24 patients were analysed.

11/24 had SCPRT as a bridge to surgery. 9/11 proceeded to tumour resection, 8 of which were pathologically downstaged. All had R0 resections.

9/24 had SCPRT instead of LCCRT due to risk of complications. 6/9 underwent tumour resection. Of these, all except one had R0 resections.

4 patients still had long LCCRT due to young age or locally advanced aggressive disease.

**Conclusion:** COVID-19 has significantly impacted radical treatment of rectal cancer. SCPRT instead of LCCRT resulted in



both pathological downstage and R0 resection in most cases. As a bridge to surgery, SCPRT did not result in disease progression for any patients and is therefore safe.

1. Muirhead R, Jacobs C, Weaver A et al. (2020) Lower GI response to the COVID-19 outbreak. RCR Coronavirus (COVID-19): cancer treatment documents.

### P031 Pancreatic cystic incidentals

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United Kingdom use of CT and MRI has increased 42% within the last 10 years. This upward trend is likely to continue and has led to a rise in the identification of incidental cystic pancreatic lesions. Pancreatic incidentals are unexpected, asymptomatic abnormalities that are discovered while screening for other diseases or found while actively searching for other pathology. Their reported prevalence on abdominal imaging is highly variable, ranging from 2-45%. Whilst the majority of these incidental cystic findings in a low risk population are either benign or low-grade indolent neoplasms, a small percentage are malignant and long-term imaging follow-up of indeterminate lesions is often necessary. Different pathological subtypes have distinct features on imaging; therefore a radiologist needs to be familiar with their different appearances to facilitate diagnosis. A 2017 review by the American College of Radiology has provided guidance on this challenging subject.

**Purpose:** The purpose of this educational poster is to:

- Illustrate the characteristic imaging features of different cystic pancreatic lesions
- Highlight key morphologic features which identify an individual cyst as concerning
- Discuss appropriate imaging surveillance of selected cystic pancreatic lesions.

**Summary of poster content:** Based on literature review, we will:

- Summarise the recommended diagnostic algorithms for management
- Review the recommended scan techniques
- Present a pictorial review with learning points of the following; major categories of pancreatic cystic incidentals, worrisome morphological features, and management of pancreatic cystic lesions in the asymptomatic patient.

1. D'Ippolito, G (2018) Incidental pancreatic cyst: still a lot of road to cover. Radiol Bras. Jul-Aug; 51(4): V-VII. 2. Grace, E (2018) ACG Clinical Guideline: Diagnosis and Management of Pancreatic Cysts. AJG. 113(4) 464-479 3. Hasan, A (2019) Overview and comparison of guidelines for management of pancreatic cystic neoplasms. World J Gastroenterol. 21;25(31:4405-4413 4. Megibow A (2017) Management of Incidental Pancreatic Cysts: A White Paper of the ACR Incidental Findings Committee. JACR. 14(7) 911-923

### P032 Surveillance of pancreatic cystic lesions

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**Background:** The prevalence of pancreatic cystic lesions (PCLs) is increasing as diagnostic imaging is advancing in quality and resolution. Some PCLs have malignant potential but the rate of malignant transformation is low. Curative treatment for PCLs involves invasive surgery with a high mortality and morbidity rate. Therefore PCLs are often managed conservatively using radiological surveillance. Unlike other conditions, PCLs are watched for many years because the malignant potential does not decrease with time. Although diagnosing PCLs has the potential to highlight the development of early pancreatic cancer, it can also create anxiety for patients.

**Purpose of poster:** Understanding the experiences and needs of patients living with PCLs under surveillance is important in order to identify opportunities to improve patient experiences during this uncertain period. The aim of this poster is to educate participants about the radiological involvement for PCL diagnosis and surveillance and outline the current difficulties that patients experience following a diagnosis of PCLs.

**Summary of content:** Educational infographic about PCLs, their radiological appearances and the current pathways that patients may undertake within the NHS. This poster provides the research setting and details of the study population for the first author's PhD research exploring the experiences of patients under this surveillance management.

**Conclusion:** There is no available research which has explored the patient experiences of PCL surveillance, where the wider body of literature demonstrates unmet needs in similar patient populations. Further investigation is required to understand which intervention/methods improve the experiences of PCL patients.



**P033 CT abdomen/pelvis scans efficiency for surgical patients using the national emergency laparotomy audit (NELA) tool emergency care pathway standards**

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The term "acute abdomen" defines a clinical syndrome characterized by the sudden onset of severe abdominal pain requiring emergency medical or surgical treatment [1]. Abdominopelvic computed tomography (CT) has assumed an increasingly important role in the evaluation and diagnosis of patients presenting with acute abdominal symptoms and is widely used as an integral part of surgical triage (2,3). A significant proportion of patients would proceed to surgical intervention and any delay in reaching a diagnosis could be life threatening (4). We used neighbouring trust (Dudley Group NHS Foundation Trust) Emergency Care Pathway as a standard to compare our data against, as it was one of the pathway examples suggested by The National Emergency Laparotomy Audit (NELA) tool carried out by the National Institute of Academic Anaesthesia's Health Services Research Centre (HSRC) on behalf of the Royal College of Anaesthetists (RCoA). The (Dudley Group NHS Foundation Trust) Emergency care pathways criteria: CT scan within 2 hours Report within 1 hours.

1-Gore, R.M., Miller, F.H., Pereles, F.S., Yaghamai, V. and Berlin, J.W., 2000. Helical CT in the evaluation of the acute abdomen. American Journal of Roentgenology, 174(4), pp.901-913 2-Sala, E., Watson, C.J.E., Beadsmoore, C., Groot-Wassink, T., Fanshawe, T.R., Smith, J.C., Bradley, A., Palmer, C.R., Shaw, A. and Dixon, A.K., 2007. A randomized, controlled trial of routine early abdominal computed tomography in patients presenting with non-specific acute abdominal pain. Clinical radiology, 62(10), pp.961-969 3-Rosen, M.P., Sands, D.Z., Longmaid III, H.E., Reynolds, K.F., Wagner, M. and Raptopoulos, V., 2000. Impact of abdominal CT on the management of patients presenting to the emergency department with acute abdominal pain. American Journal of Roentgenology, 174(5), pp.1391-1396 4-Howlett, D.C., Drinkwater, K., Frost, C., Higginson, A., Ball, C. and Maskell, G., 2017. The accuracy of interpretation of emergency abdominal CT in adult patients who present with non-traumatic abdominal pain: results of a UK national audit. Clinical radiology, 72(1), pp.41-51.

**P034 CT and PET-CT findings in primary pancreatic lymphoma**

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**Background:** Primary pancreatic lymphoma (PPL) is a rare subtype of pancreatic cancer and can be challenging to diagnose due to the similarities in clinical presentation it has with the exceedingly more common pancreatic adenocarcinoma.

**Purpose:** We present the clinical and CT/PET-CT findings in a patient with PPL to improve awareness of this rare condition. A 75-year-old gentleman with a background of essential hypertension, hypercholesterolaemia, macular degeneration and a right ear neuroma underwent routine blood tests which detected abnormal liver function (bilirubin 43, ALP 321, ALT 732, GGT 943). The patient complained of dark urine but denied any jaundice, weight loss or night sweats. He underwent an abdominal ultrasound which revealed a 10cm epigastric mass. A CT-CAP was performed revealing a large mesenteric mass contiguous with the pancreas which was directly infiltrating the pancreatic head. There was associated retroperitoneal lymphadenopathy and the distal common bile duct (CBD) was obstructed with a degree of intrahepatic biliary dilatation. A CT-guided biopsy was performed and histology confirmed a diagnosis of PPL (a high-grade B-cell non-Hodgkin's lymphoma). A PET-CT prior to treatment revealed a 13cm metabolically active abdominal soft tissue mass with separate retroperitoneal sites of nodal disease. There was no evidence of skeletal, splenic or subdiaphragmatic involvement. The patient underwent ERCP with biliary stent insertion to relieve the CBD obstruction, followed by R-CHOP chemotherapy to treat the PPL.

**Summary:** Radiologists should be aware of the imaging findings of PPL and must consider PPL in the differential diagnoses for pancreatic masses.

1. Boninsegna, E., Zamboni, G.A., Facchinelli, D. et al. (2018) CT imaging of primary pancreatic lymphoma: experience from three referral centres for pancreatic diseases. Insights Imaging. 9, 17â?"24.
2. Merkle, E.M., Bender, G.N., Brambs, H. (2000) Imaging findings in pancreatic lymphoma differential aspects. Am. J. Roentgenol. 174, 671-675.
3. Rad, N., Khafaf, A., Mohammad, A.H. (2017) Primary pancreatic lymphoma: what we need to know. J. Gastrointest. Oncol. 8(4), 749-757.



**PAEDIATRICS POSTER PRESENTATIONS**

**P035 An audit into chest x-rays taken through A&E on children aged 2 and under**

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**Background:** A&E departments can be stressful environments for children. It is imperative to obtain a radiograph of highest diagnostic quality as possible. However, this is not always straight forward when imaging children. The ideal chest radiograph would have real anatomical markers, four borders of collimation, no visible hands on the film, no