

**Fig 4.** CT guided fusion imaging

microcatheter was negotiated along this allowing coiling and fibrovenin foam embolisation (Figure 2). Following TIPSS and embolization (January 2018) bleeding was controlled and the patient was successfully discharged.

To date, liver cirrhosis remains compensated with no post TIPSS hepatic encephalopathy in spite of relapse to low level alcohol consumption. He is currently Child Pugh A5 offering a 1 year survival of 95% and 2 year survival of 85%. No further variceal surveillance is required as portal hypertension has been addressed.

Gastroesophageal variceal bleeding is a common complication of patients with chronic liver disease. Bleeding from any location where there are portosystemic anastomoses and collateral vascular formation is possible.<sup>1</sup> Variceal bleeding from locations other than the gastrointestinal tract (ectopic variceal bleeds) whilst rarely considered, account for up to 5% of all variceal bleeding. In addition, haemorrhage can be massive with mortality reaching up to 40%.<sup>2</sup>

Treatment is generally guided by local expertise due to absence of large studies. Initial interventions such as suture haemostasis and cauterisation have success for only a limited time frame. Medical treatments implemented to lower portal pressure include vasoconstrictors (terlipressin) in the acute setting and beta blockers (propranolol, carvedilol) in the chronic setting.<sup>1,2,3</sup>

Radiological interventions such as shunting (TIPSS) and percutaneous umbilical vein embolisation with sclerotherapy have been documented. A greater than 50% reduction in pressure gradient has been demonstrated to protect patients from rebleeding.<sup>1</sup>

Gary Morrison<sup>1</sup>, Anton Collins<sup>2</sup>, Roger McCorry<sup>1</sup>

1. Liver Unit, RVH Belfast

2. Interventional Radiologist, RVH Belfast

**Correspondence to:** Dr Gary Morrison

**E-mail:** gmorrison10@qub.ac.uk

**Key Words:** Gastrointestinal Bleeding/Alcoholic Liver Disease/Interventional Radiology/Portosystemic Shunting

There was no funding for any aspect of this manuscript.

No competing interests need disclosed.

We would like to acknowledge the IR department of RVH for their assistance with this case and the supplying of published images.

#### REFERENCES:

1. Recurrent and Troublesome Variceal Bleeding from Parastomal Caput Medusae; The Korean Journal of Gastroenterology; C Strauss, M Sivakkolunthu, A A. Ayantunde; 2014
2. Diagnosis and management of ectopic varices; Gastrointestinal Intervention; N M. Akhter and Z J. Haskal; 2012
3. Fatal haemorrhage from a caput medusae: A differential to a stabbing; Emergency Medicine Australasia; K Y Hoi, E D Mignanelli, D Lightfoot; 2007

## PRIMARY PANCREATIC LYMPHOMA

### Editor

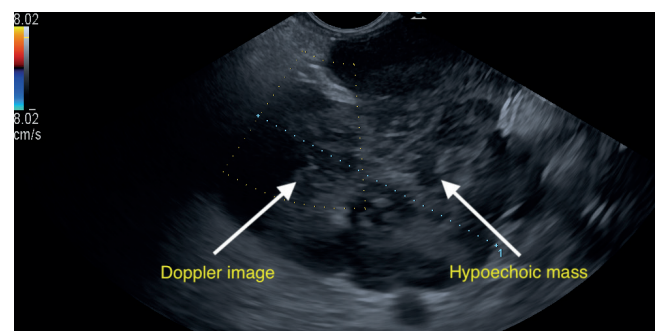
We present a case of a rare primary pancreatic malignancy which provides a challenging diagnosis given a non-specific presentation and lack of unique identifiers on imaging.

An 80-year-old gentleman presented with painless jaundice (Bilirubin 85  $\mu\text{mol/l}$ , Alkaline Phosphatase 235 U/L, Aspartate Aminotransferase 124 U/L, Alanine Aminotransferase 132 U/L, and Gamma-Glutamyl Transferase 326 U/L).

Abdominal ultrasound confirmed a large mass related to the head of the pancreas. Computed Tomography (CT) chest, abdomen and pelvis showed a pancreatic mass with vascular involvement and presence of a gastric antrum lymph node.

Endoscopic Ultrasound (EUS) with Fine Needle Biopsy (FNB) of the pancreatic mass was performed (Figure 1 and Figure 2). Figure 1 shows a 3.7cm hypoechoic mass with no vascularity on Doppler imaging, suggesting that the mass is not a neuroendocrine tumour. Figure 2 shows the mass infiltrated by a biopsy needle and a smooth non-infiltrative border, atypical of adenocarcinoma.

Histology and immunochemistry of the pancreatic mass confirmed a high-grade B cell Non-Hodgkin's Lymphoma stage IV A.



**Figure 1**

He was referred to haematology for treatment and following cycle 4 of chemotherapy, a follow up Computed Tomography scan of his Chest, Abdomen and Pelvis showed a significant reduction in size of the Primary Pancreatic Lymphoma.

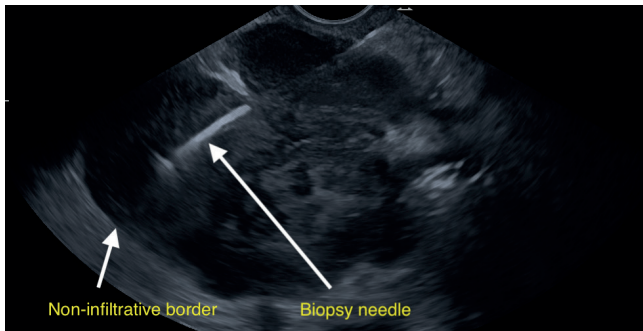


Figure 2

## DISCUSSION

Primary Pancreatic Lymphoma (PPL) is a rare subtype of primary pancreatic malignancy, consisting of <0.5% of all pancreatic cancers, usually found in males aged 35-75.<sup>1,2</sup>

The diagnostic criteria for PPL are:

- 1) Neither superficial lymphadenopathy nor enlargement of mediastinal lymph nodes on chest radiography.
- 2) Normal leucocyte count in peripheral blood.
- 3) Main mass in the pancreas with lymph-nodal involvement confined to the peri-pancreatic region.
- 4) No hepatic or splenic involvement.<sup>3</sup>

They present in similar ways to the head of pancreas adenocarcinoma, with symptoms such as jaundice, pancreatitis, abdominal pain, abdominal mass and diarrhoea, though rarely have typical B-symptoms of Non-Hodgkin's Lymphoma such as night sweats or fevers.<sup>2</sup>

Serum tumour markers are not particularly useful in PPL as they are not always raised, and CT scan can confirm presence of distal node involvement therefore pointing away from a PPL.

Endoscopic ultrasound (EUS) combined with fine needle biopsy (FNB) improves diagnostic accuracy on top of an FNA alone.<sup>2</sup> EUS is less invasive and can characterise the lesions present. Once a FNB has been obtained from EUS, it will be sent for Flow Cytometry (FC) and immunohistochemistry in order to aid diagnosis and treatment.

The treatment for PPL is cycles of chemotherapy under the guidance of a haematologist, without evidence for surgical resection.<sup>4</sup>

The prognosis for PPL is much better than that for pancreatic adenocarcinoma. A case series from 2005 showed a mean survival rate of 69-80 months for patients who received chemotherapy as a first line treatment for PPL.<sup>5</sup>

## CONCLUSION

As shown in this case, histological sampling of a pancreatic mass must always be made given the difference in treatment and prognosis between adenocarcinoma and PPL. Given the small amount of tissue involved, samples should be sent for immunohistochemistry and flow cytometry to aid diagnosis and treatment.

Dr. Darragh McCullagh LAT4 Gastroenterology Craigavon Area Hospital, Dr. Andrew McNeice ST6 Gastroenterology Mater Infirmorum Hospital, Dr. Paul Rice Consultant Radiologist Craigavon Area Hospital, Dr. Inder Mainie Consultant Gastroenterologist Belfast City Hospital.

Correspondence to: Dr Darragh McCullagh

E-mail: dmccullagh05@qub.ac.uk

## REFERENCES

1. Baylor SM, Berg JW. Cross-classification and survival characteristics of 5,000 cases of cancer of the pancreas. *J Surg Oncol.* 1973; 5(4) 335-58.
2. Nayer H, Weir EG, Sheth S, Ali SZ. Primary pancreatic lymphomas; a cytopathologic analysis of a rare malignancy. *Cancer.* 2004; 102(5):315-21.
3. Dawson IM, Cornes JS, Morson BC. Primary malignant lymphoid tumours of the intestinal tract. Report of 37 cases with a study of factors influencing prognosis. *Br J Surg.* 1961; 4:80-9.
4. Grimison P, Chin MT, Harrison ML, Goldstein D. Primary pancreatic lymphoma – pancreatic tumours that are potentially curable without resection, a retrospective review of four cases. *BMC Cancer.* 2006; 6: 117.
5. Arcari A, Anselmi E, Bernuzzi P, Berta R, Lazzaro A, Moroni CF, et al. Primary pancreatic Lymphoma. A report of five cases. *Haematologica.* 2005; 90(1): ECR09.

## FEASIBILITY OF COLOUR DOPPLER ULTRASOUND FOR DETECTION OF INTRAARTICULAR SACROILIAC JOINT INJECTION: A CASE SERIES.

### Editor,

We would like to share our experience of colour Doppler ultrasound (CDU) in the detection of correct needle placement for sacroiliac joint (SIJ) injection during interventional procedures for management of low back pain (LBP).

Injection of steroid mixed with local anaesthetic (LA) is a well-recognised method for both diagnostic and therapeutic management of SIJ pain. Several imaging modalities have been used to guide such interventions in SIJ.<sup>1</sup> Fluoroscopic guidance is still considered as gold standard to confirm needle placement and spread of the dye. The majority of such imaging techniques involve use of ionising radiation. Ultrasound is however being used increasingly.<sup>2</sup> In many interventional pain procedures it is replacing ionising modalities because of the portability allowing the procedure to be performed at bedside without such hazards.<sup>3</sup> However, ultrasound has a potential limitation in viewing the needle trajectory and the spread of the injectate inside the bony SIJ. CDU can overcome this problem by allowing visualisation of the flow of the injectate.<sup>4</sup> We thus decided to conduct this case study to find out the utility of CDU.



UMJ is an open access publication of the Ulster Medical Society (<http://www.ums.ac.uk>).

The Ulster Medical Society grants to all users on the basis of a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence the right to alter or build upon the work non-commercially, as long as the author is credited and the new creation is licensed under identical terms.