OTU-020 ALTERED FC AND FAB GLYCOSYLATION STATUS IN PATIENTS WITH IGG4-RELATED SCLEROSING CHOLANGITIS AND AUTOIMMUNE PANCREATITIS

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Introduction IgG4-related disease (IgG4-RD) is a systemic fibro-inflammatory condition characterised by an abundance of IgG4⁺ antibodies in the serum and tissue of involved organs. IgG glycosylation plays an important role in many chronic inflammatory and autoimmune conditions. We sought to assess the glycosylation status in patients with IgG4-RD and correlate with disease activity, damage and response to treatment.

Methods IgG Fc and Fab glycosylation status was assessed in patients with IgG4-RD involving the bile ducts (IgG4-sclerosing cholangitis, IgG4-SC) and pancreas (autoimmune pancreatitis) (n=22), disease controls with primary sclerosing cholangitis (DC n=22) and healthy controls (HC n=22). Disease activity, organ damage and response to treatment were assessed serially using the IgG4-responder index. Serum IgG and subclasses were quantified using an ELISA and nephelometry. IgG and subclass Fc glycosylation was analysed by mass spectrometry and Fab glycosylation by lectin (SNA) affinity chromatography. Statistics were performed using Prism.

Results IgG4-SC and AIP patients exhibited reduced total IgG Fc galactosylation and IgG1 Fc bisection, and increased IgG4 Fc fucosylation and IgG2/3 Fc hybrid compared with HC. There was recovery of IgG1 Fc bisection (increase) and IgG2/3 Fc hybrid (decrease) upon corticosteroid treatment. IgG Fc galactosylation and IgG2/3 Fc hybrid correlated with disease activity. IgG Fab glycosylation was higher in IgG4-RD patients, with an increase in IgG4-specific, and to a lesser extent IgG1-specific, Fab glycosylation compared to HC and DC.

Conclusions In the first study to assess glycosylation status in IgG4-RD, we demonstrated alterations in both IgG Fc and Fab glycosylation, which may play a role in pathophysiology and serve as a biomarker of disease.

PTU-022 WHAT IS THE YIELD AND CLINICAL UTILITY OF EUS IN PATIENTS WITH PRIOR NON-DIAGNOSTIC MRCP?

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Introduction The most effective investigation for suspected gallstones between MRCP and EUS is unclear. A 2015 Cochrane systematic review of their performance in common bile duct (CBD) stones concluded that the tests were of comparable accuracy. Conversely, a 2017 meta-analysis found EUS to be more sensitive. Any superiority of EUS may be due to better accuracy in detecting small stones. MRCP is routinely favoured as the 2nd line test following a non-diagnostic abdominal ultrasound and EUS subsequently performed as the 3rd line test when suspicion remains after a non-diagnostic MRCP. The yield and clinical utility of EUS in this setting is

unclear. The aim was to identify the yield of EUS in patients with prior non-diagnostic MRCP undergoing EUS in our tertiary service.

Methods All EUS reports from 2017 were reviewed along with the electronic patient records to identify cases with prior MRCP. Indication for the procedure, symptoms, liver blood tests and interval between MRCP and EUS were recorded. Findings of sludge, microlithiasis (stones <2 mm) and discrete stones were categorised together as stones. Subsequent ERCP or cholecystectomy was identified. Yield was defined as a finding that would lead to a change in management.

Results A total of 1058 diagnostic EUS were screened of whom 253 (24%) had prior MRCP and formed the study group. Median age was 58 (16–88) years, 179 (71%) were female and 91 (36%) had a cholecystectomy. Median interval between EUS and MRCP was 5.2 (0.1–37) months. Indications for EUS were: n=76 (30%) dilated CBD, n=65 (26%) query CBD stones, n=54 (21%) unexplained acute pancreatitis (AP), n=23 (9%) right upper quadrant pain, n=17 (6.7%) abnormal LFTs, n=16 (6.3%) double duct sign and n=2 (1%) dilated PD. There was a yield from EUS in 30 (12%) patients with no significant difference between those with (n=11) or without cholecystectomy (n=19). Stones were identified in 24 cases with median size of 4 mm (range 2–8) in: CBD (n=16), cystic duct (n=1) and GB (n=7). Three had abnormal CBD without stones (calcification CBD wall, thick walled CBD, polyp), 1 patient with possible stone on MRCP had no stone seen on EUS, 1 had a pancreatic mass, and 1 had chronic pancreatitis. All patients in whom EUS findings indicated an intervention (26/30) have been referred: ERCP in 13, cholecystectomy in 9, ERCP and cholecystectomy in 3 and chemotherapy in 1.

Conclusion EUS following non-diagnostic MRCP is a sizeable workload accounting for 24% of diagnostic activity in our unit with a clinically significant yield in 12% of predominantly small stones. Further prospective studies are required to ascertain the most cost-effective way to incorporate EUS into the investigation of suspected gallstone disease.

PTU-023 ENDOSCOPIC ULTRASOUND BIOPSY PRIOR TO PALLIATIVE TREATMENT FOR PANCREATIC CANCER: CAN WE PREVENT UNNECESSARY PROCEDURES?

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Introduction Pancreatic adenocarcinoma (PDAC) has a very poor prognosis with most patients presenting with advanced incurable disease. Palliative chemotherapy can have a significant improvement in survival, but given the potential severe complications patient assessment and histological confirmation with endoscopic ultrasound fine needle aspiration (EUS-FNA) is required. The rapid progression of PDAC can result in patients urgently travelling to tertiary centres and undergoing EUS-FNA (which is an invasive, sedated procedure with associated morbidity) prior to formal assessment in patients where the chemotherapy is subsequently not given. We aimed to see if there are pre-test prediction factors for non-uptake of palliative chemotherapy in PDAC in our cancer network.

Methods We retrospectively reviewed consecutive patients referred for EUS-FNA over a 2 year period for evaluation of