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, AIP) (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 subclasses were quantified using an ELISA and nephelometry. IgG and subclass Fc glycosylation was assessed 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-SC, we demonstrated alterations in both IgG Fc and Fab glycosylation, which may play a role in pathophysiology and serve as a biomarker of disease.

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