Methods All patients diagnosed with pancreatic adenocarcinoma over a 2-year period who underwent trial dissection or resection after routine staging with CT and EUS were included in the study. CT and EUS images were retrospectively reviewed by two radiologists in a double blinded manner and the findings were compared with operative findings and final histology in those patients who underwent radical resection. Sensitivity, Specificity, Positive Predictive value (PPV), Negative predictive value and Accuracy were determined for assessing major vessel involvement which in most cases preclude radical resection.

Results 23 patients (M:F=13:10; mean age=68; range=56–78) underwent trial dissection or radical resection over a 2-year period. 13 were inoperable (nine inoperable due to locally advanced tumour, 1 inoperable due to liver mets, three both locally advanced and liver mets) and 10 underwent radical resection (three resected with cuff of portal vein (all R1), seven resected with six of them R1). Predictably EUS had superior sensitivity and accuracy over CT for both major vessel involvement (88% vs 53% & 87% vs 65%) and nodal involvement (43% vs 10% & 56% vs 30%). However CT was superior to EUS in excluding major vessel involvement (specificity = 100% vs 86%) and comparable to EUS in ruling out nodal disease (specificity = 100%). Importantly, three patients declared as having major vessel involvement by either of the modality underwent radical resection, two of them with PV resection. One patient who was staged as resectable with no vascular involvement was found to have major vessel involvement and underwent resection (R1).

Conclusion Though CT and EUS have important role in staging of patients with pancreatic cancer, a significant minority of patients will still be amenable to radical surgery and should be offered trial dissection with a view to radical surgery as surgery is the only realistic curative therapeutic option.

Competing interests None declared.

Basic science (liver)

PM0-112 IS PRIMARY BILIARY CIRRHOSIS A STEROID SENSITIVE AUTOIMMUNE DISEASE?

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Introduction Primary biliary cirrhosis (PBC) is a classic T cell mediated autoimmune disease: an autoantigen has been described and high levels of antigen specific liver infiltrating auto-reactive $CD4^+$ T cells found. However, unlike in other autoimmune conditions steroid therapy is not considered effective in PBC although there is existing evidence that it can improve histological and biochemical parameters.[1] We sought further evidence that PBC is a steroid sensitive disease by using two in vitro measures of steroid sensitivity.

Methods We have applied an in vitro dexamethasone (Dex) inhibition of lymphocyte proliferation assay (DILPA), which correlates well with clinical steroid sensitivity and outcome in ulcerative colitis[2] and alcoholic hepatitis,[3] to 20 patients with PBC diagnosed by liver biochemistry, antibodies and liver histology (when performed). The DILPA assesses peripheral blood mononuclear cell (PBMC) sensitivity to treatment with steroids in vitro. We also examined the role of $CD14^+$ monocytes, which produce pro-inflammatory cytokines to recruit T cells to the tissue of inflammation. PBMCs were isolated from peripheral blood by density gradient centrifugation over Ficoll. $CD14^+$ cells were obtained by positive microbead selection and cultured with 300 ng/ml lipopolysaccharide in the presence or absence of Dex 1×10^{-6}M for 24 h. Supernatants were then collected and interleukin (IL)-1β, IL-6 and TNFα were measured by cytokine bead array (BD biosciences) according to manufacturer's instructions. Suppression of cytokine production by Dex was calculated.

Results In 20 patients with PBC, just one individual demonstrated in vitro steroid resistance by DILPA, and peripheral lymphocytes were sensitive to steroids in all other study subjects. Suppression of lymphocyte proliferation by Dex was significantly greater in patients with PBC compared to 37 healthy volunteer controls (86% vs 76%, p=0.04). Furthermore, Dex induced a 40%–100% suppression of IL-1β, IL-6 and TNFα (mean 75%, 74% and 79%, respectively) in the supernatants of $CD14^+$ monocyte cultures. This suggests that both peripheral blood lymphocytes and monocytes in patients with PBC are steroid sensitive.

Conclusion Using a validated measure of lymphocyte steroid sensitivity and a further assessment of monocyte steroid sensitivity we have demonstrated that PBC is a steroid sensitive disease. Together with existing clinical studies of glucocorticoids in PBC[1] our in vitro evidence suggests that steroid treatment should not be dismissed outright as it may provide a useful option in selected patients with PBC.

Competing interests None declared.

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PM0-113 FN14 IS EXPRESSED ON CHOLANGIOCYTES AND PROMOTES BILIARY DUCTULAR REMODELLING VIA APOPTOSIS AND REACTIVE OXYGEN SPECIES AFTER INTERACTION WITH TWEAK

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Introduction The mortality from chronic liver disease in the UK has increased by 50%.[1] The prevalence of cholangiopathies, diseases of the bile ducts, has increased fourfold.[2] These include primary biliary cirrhosis, primary sclerosing cholangitis and allograft rejection after transplantation.[3 4] It is increasingly observed in livers donated for transplantation after cardiac death, a source of organs on which the NHS is becoming more reliant.[5 6] It is characterised by inflammation and destruction of intrahepatic bile ducts.[7] When sustained it may drive portal fibrosis to end-stage liver disease when the only therapeutic option for patients is liver transplantation.[8] The novel TNF superfamily member TNF-like weak inducer of apoptosis (TWEAK) and its cognate receptor FGF-inducible protein 14 (Fn14) are implicated in hepatic inflammation and remodelling.[9 10] TWEAK is mainly secreted as a soluble cytokine by myelomonocytic cells.[11] Fn14-TWEAK interaction in other systems promotes cell growth, apoptosis, autophagy and transdifferentiation via activation of TRAF and NF-kB pathways.[12]

Aim To demonstrate the expression of Fn14 and TWEAK on cholangiocytes and the functional significance of Fn14/TWEAK interaction on biliary ductular remodelling.

Methods Human liver samples were obtained with consent from the Queen Elizabeth Hospital liver transplant programme. Sections were stained for Fn14 and TWEAK using immunohistochemical techniques. Expression of Fn14 and TWEAK on cholangiocytes stimulated with TNF-α, IFN-γ and FGF was established quantitatively using flow cytometry. Cholangiocytes stimulated with FGF were exposed to TWEAK for 48 h. Apoptosis and reactive oxygen species production at this time point were determined by flow cytometry using annexin and dichlorofluorescein assays respectively.