USE OF RITUXIMAB IN RESISTANT AUTOIMMUNE HEPATITIS – BIRMINGHAM EXPERIENCE

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Disclosure of Interest
None Declared.

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Introduction
Autoimmune hepatitis (AIH) is due to breakdown in immunological self-tolerance. Sustained remission in AIH is crucial to prevent the progression to end stage liver disease. Around 9% of the patients are refractory/intolerant to the standard therapy with prednisolone (Pred) ± azathioprine (AZA). High levels of immunoglobulin are typical of AIH and plasma cells are frequently observed in liver histology. Rituximab is an anti-CD20 monoclonal antibody that depletes B-cells and has been used to treat other autoimmune conditions such as systemic lupus erythematosus. However, little has been reported on the role of B cells depletion and its outcome in AIH.

The aim of the study was to evaluate the safety and efficacy of rituximab in the treatment of refractory AIH.

Methods
A retrospective case note review of well-defined and biopsy proven type-1 AIH (simplified scoring >6). 5 patients out of 200 who were intolerant/refractory to standard therapy were given Rituximab and the responses were followed up for 72 weeks.

Efficacy was measured by biochemical and immunological parameters (bilirubin, AST, ALT and Immunoglobulin every 12 weeks. The dose of Prednisolone as well as UKELD/MELD score pre and post treatment was also evaluated.

Results
All 5 patients were female and mean age was 45 (range 35–66 yrs). The rituximab dose used was 1000 mg and the total number of doses received varied between 2 and 4 (Mean 3.2). Three patients had other concomitant autoimmune conditions (endocrine, rheumatological and renal related autoimmune diseases). The mean dose of prednisolone used pre-rituximab was 19mg (±SD 12.57) and this was reduced to 12.5mg (± SD 5.0) post treatment (statistically not significant=NS). There was a slight improvement of IgG pre and post Rituximab treatment (NS), with no improvement in UKELD score. There was an improvement in biochemical profile but this was not statistically significant throughout the observation period. All five patients were alive and rituximab was well tolerated without any serious adverse events.

Conclusion
Rituximab is well-tolerated and safe to use in resistant AIH. It can cause some biochemical and immunological improvement. Current evidence for its use in AIH patients is not well proven. The study numbers are too small to detect the actual outcome of the therapy. A multicenter larger cohort prospective study with longitudinal immunological, biochemical and histological profile assessment is warranted to assess its efficacy in resistant AIH patients.

REFERENCE

Disclosure of Interest
None Declared.
parameters were collected, and differences in disease phenotype correlated with age at presentation (SPSSv21).

**Results** The median age of disease presentation in our cohort was 44 years (IQR:25–56). Although there was no significant correlation between patient age and mode of disease presentation, younger age was more commonly associated with lower baseline serum ALP (Spearman’s rho = 0.239; P = 0.011). Patient age negatively correlated with ALP:AST ratio (rho = 0.252; P = 0.008); however, there was no correlation with serum AST, bilirubin, albumin, platelet count, INR, IgG titre or ANA/ASMA status. Using quartile cut-points in order to compare extremes of age, individuals presenting below the age of 25 (Q4; 7.6; 3.2–13.0) (P = 0.023). Age <25 at disease presentation was more often associated with an ALP:AST ratio <1.5 (11/25 [44%] vs. 4/25; [16%], P = 0.017). There were no significant differences in IBD phenotype, number of patients meeting transplantation or median time to transplant.

**Conclusion** Younger patients more commonly have a lower ALP:AST ratio at disease presentation, and may indicate a more 'inflammatory' PSC phenotype.

Disclosure of Interest None Declared.

**PTU-126 MORTALITY ASSOCIATED WITH HEPATIC ENCEPHALOPATHY IN PATIENTS WITH SEVERE LIVER DISEASE**

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**Introduction** Despite hepatic encephalopathy (HE) being a common complication of severe liver disease, there are comparatively few data describing the epidemiology of the condition. The aim was to characterise mortality risk for patients with HE.

**Methods** The study was conducted using data from the Clinical Practice Research Datalink (CPRD). Patients with a record of first diagnosis of liver disease were identified between 1998 and 2012. Two Cox Proportional Hazard models were generated. The first followed the whole liver disease cohort with HE modelled as a binary time-dependent variable in quarterly segments. The second compared patients identified with HE to non-HE controls matched at a ratio of 1:1 on age, gender, year of first diagnosis of liver disease, liver disease duration and Baveno IV status.

**Results** 17,030 patients were identified with a diagnosis of liver disease, of whom 551 (3.2%) had a HE diagnosis. Of patients identified with HE, 304 of 551 (55.2%) died during the follow-up period, compared with 6,693 of 16,479 (40.6%) of those without HE (p < 0.001). In the Cox Proportional Hazard model, the hazard ratio of HE modelled as a time-dependent variable was 1.43 (95% CI 1.20–1.70; p < 0.001) (Table 1). 389 of the 551 HE patients (70.6%) could be matched to non-HE patients. 226 HE HE patients (58.1%) died during the follow-up period compared with 126 (32.4%) controls. The hazard ratio for time to death was 2.28 (95% CI 1.82–2.87; p < 0.001).

**Conclusion** HE substantially increased mortality risk in patients with chronic liver disease.


**PTU-127 RESOURCE USE ASSOCIATED WITH HEPATIC ENCEPHALOPATHY IN PATIENTS WITH SEVERE LIVER DISEASE**

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**Introduction** Overt hepatic encephalopathy (HE) is associated with frequent hospitalisations which are expensive to manage and result in poor quality of life. The aim was to estimate the resource use associated with HE and hospitalisation in the UK.

**Methods** The Clinical Practice Research Datalink (CPRD) with linked hospital data from Health Episode Statistics (HES) was used to identify patients with a first diagnosis of liver disease between 1998 and 2012 and examine their all-cause hospitalisations. HE patients were matched to controls at a ratio of 1:1 by age, gender, year of first diagnosis, duration and severity of liver disease. Hospital admission data (frequency and length of stay) associated with HE. 389 of the 551 HE patients (70.6%) could be matched to non-HE controls. In the HE group, the median length of stay was 8.0 days (sd 11.6) vs 6.8 days (sd 9.5) (p = 0.148) in the non-HE group. Following first HE event, patients had significantly greater proportion of liver-related admissions were through AandE (62.1% vs. 50.0%, p < 0.001) and mean length of stay was 8.0 days (sd 11.6) vs 6.8 days (sd 9.5) (p = 0.148) in the non-HE group. Following first HE event, patients had...