USE OF RITUXIMAB IN RESISTANT AUTOIMMUNE HEPATITIS – BIRMINGHAM EXPERIENCE

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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 Predisolone 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.