

PTU-032 **MANAGEMENT OF AUTOIMMUNE HEPATITIS:
A UK-WIDE SURVEY**

doi:10.1136/gutjnl-2012-302514c.32

H Dhaliwal,* C Facey, D Gleeson. *Liver Unit, Sheffield Teaching Hospitals NHS Trust, Sheffield, UK*

Introduction Most hepatologists and many gastroenterologists manage patients with autoimmune hepatitis (AIH). There are no data regarding management of AIH in the UK as a whole. We aimed to conduct a survey of UK clinicians' practice in regard to managing AIH.

Methods An anonymised online questionnaire was e-mailed to 952 UK gastroenterology and hepatology consultant physicians, identified via the Directory of Gastroenterology.¹ Responses were collected via surveymonkey, an online questionnaire tool. We included only responders who indicated that they managed patients with liver disease. We defined responders as hepatologists if liver disease made up >70% of their workload.

Results 228 (24%) responded, 222 of whom managed patients with liver disease (38 (17%) hepatologists and 184 (83%) gastroenterologists). 26% managed ≤5 patients with AIH, 25% 6–10, 30% 11–25, 10% 26–50 and 8% >50 patients. Half the responders indicated that all gastroenterologists in their hospital managed AIH; the remainder indicated that AIH was managed by hepatologists or gastroenterologists with a "liver" interest. Diagnostic liver biopsy (in absence of serious contraindication) was performed always by 62%, usually by 27% and only if the diagnosis was in doubt by 11%. Hepatologists were more likely than gastroenterologists to perform diagnostic liver biopsy always (82% vs 58%; $p=0.02$). As routine initial therapy, 80% of respondents used prednisolone+azathioprine (PRED+AZA) combined, 12% used PRED alone and 3% used budesonide+AZA. 65% continued PRED only until serum ALT normalised or for up to 6 months. 20% did so for >12 months and 15% did so until confirmation of histological remission. Gastroenterologists were more likely than hepatologists to continue PRED only until ALT normalised or for up to 6 months (68 vs 50%) and were less likely to do so until confirmation of histological remission (12 vs 29%; $p=0.02$). 17% of respondents repeated liver biopsy routinely to confirm histological remission, 67% did so in selected cases and 16% never did. 63% routinely used maintenance therapy and 30% did so only after first relapse. Preferred maintenance therapy was AZA monotherapy in 74% and AZA+PRED in 21%. 34% of respondents continued maintenance therapy indefinitely, 59% attempted withdrawal (6% after 2–5 years; 50% after 5–10 years and 3% after 10–20 years) and 7% had a personalised approach. There were no differences between hepatologists and gastroenterologists regarding repeat liver biopsy policy or maintenance therapy.

Conclusion In the UK, there is much variation in the approach to managing AIH, specifically in regard to: role of liver biopsy, initial therapy (particularly duration of steroids) and use of maintenance therapy.

Competing interests None declared.

REFERENCE

1. *Directory of Gastroenterology 2011*. 5th edn. Mediahuset.

PTU-033 **EVALUATION OF BONE HEALTH IN CORTICOSTEROID-TREATED AUTOIMMUNE HEPATITIS**

doi:10.1136/gutjnl-2012-302514c.33

¹H Dhaliwal,* ²N Peel, ¹D Gleeson, M Karajeh. ¹*Liver Unit, Sheffield Teaching Hospitals NHS Trust, Sheffield, UK;* ²*Metabolic Bone Unit, Sheffield Teaching Hospitals NHS Trust, Sheffield, UK*

Introduction Corticosteroid use, cirrhosis and inflammatory disease are risk factors for osteoporosis. However the occurrence of osteo-

porosis in Autoimmune Hepatitis (AIH) has been little studied. Our aims were to evaluate retrospectively the effects of the disease and its treatment on bone mineral density (BMD) in AIH and whether the use of bisphosphonates prevents bone loss.

Methods 108 patients, median (range) age 60 (18–80) with AIH for 7 (1–416) months were included. BMD was measured using dual-energy x-ray absorptiometry (DXA) at the hip and/or lumbar spine. Results are compared to manufacturer's reference population and expressed as T- and Z-scores. To assess the effect of intervention, we studied a subgroup of 37 prednisolone-treated patients who had a second DXA, with the first performed at 3 (1–6) months and the second at 28 (15–67) months from diagnosis. Patients were prescribed a bisphosphonate after the 1st DXA if clinically indicated.

Results 20% of patients had osteoporosis and 30% had osteopenia. The mean \pm SD Z-score at the hip was 0.1 ± 1 and at the spine 0.1 ± 1.5 , which was not significantly different from that of the reference population ($p=0.4$ for both). Compared to those with normal BMD, patients with osteoporosis had higher fibrosis stage at diagnosis (median 3 vs 5, $p=0.006$). On multivariate analysis, hip Z-score showed independent associations: negative with log cumulative prednisolone dose ($r=-0.25$, $p=0.02$) and positive with body weight ($r=0.4$, $p \leq 0.001$), but there was no association with disease duration. 19 patients had fragility fractures. Patients with a fracture had lower hip and spine T-scores compared to patients without (hip T-score -1.8 vs -0.6 , $p=0.006$, spine T-score -2.2 vs -1.0 , $p=0.015$). In the paired DXA analysis, BMD in hip and spine increased in patients ($n=18$) commenced on a bisphosphonate after the 1st DXA compared to those who were not (% change in BMD/year at hip $+0.3$ vs -1.7 , $p=0.002$ and at spine $+2.1$ vs -2.0 , $p=0.002$), despite the two groups receiving similar current and cumulative prednisolone doses.

Conclusion Mean BMD in treated AIH is not lower than the expected level for age. Prednisolone dose-related bone loss occurs but can be prevented with appropriate use of bisphosphonates.

Competing interests None declared.

PTU-034 **HISTOLOGICAL REMISSION IN AUTOIMMUNE HEPATITIS:
CAN IT BE PREDICTED?**

doi:10.1136/gutjnl-2012-302514c.34

¹H Dhaliwal,* ²B Hoeroldt, ³A Dube, ¹E McFarlane, ¹M Karajeh, ¹D Gleeson. ¹*Liver Unit, Sheffield Teaching Hospitals NHS Trust, Sheffield, UK;* ²*Department of Gastroenterology, Rotherham General Hospital, Rotherham, UK;* ³*Pathology, Sheffield Teaching Hospitals NHS Trust, Sheffield, UK*

Introduction A recent report¹ suggested that initial treatment of Autoimmune Hepatitis (AIH) with high-dose prednisolone results in more rapid normalisation of serum ALT and (by implication), improved outcome. However, we have reported² that persisting histological activity in AIH (Ishak necroinflammatory score (NIS) >3), despite serum ALT normalisation, is associated with fibrosis progression and increased mortality. Here, we aimed to identify, retrospectively, disease or treatment related factors associated with attaining histological remission.

Methods We studied 111 patients with AIH (93 female, median (range) age at diagnosis 57 (14–77) years treated with prednisolone plus azathioprine/mycophenolate, who had attained normalisation of serum ALT and had available follow-up biopsy.

Results Starting daily doses of prednisolone and of azathioprine were 30 (10–60) and 50 (25–150) mg respectively. Time taken to achieve normal serum ALT after starting treatment was 8 (0–144) weeks and showed no correlation with any of: (a) gender, age, serum ALT, or globulin at presentation (b) NIS or fibrosis grade at diagnostic biopsy, (c) starting dose of prednisolone or azathioprine. Biopsy was repeated 26 (12–90) months after starting