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Critical appraisal of histological features of autoimmune hepatitis: an experience in the local setting

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Introduction and objectives: Autoimmune hepatitis (AIH) is diagnosed on the basis of clinical, biochemical, immunological and histological features, using scoring systems and by exclusion of other causes. Therefore, a liver biopsy is mandatory in the diagnostic workup. The objective of this study was to critically evaluate the histological features of AIH in a Sri Lankan cohort.

Methodology: This was a retrospective descriptive study. All the initial liver biopsies of patients with AIH (selected following clinical, serological and histological correlation) at the National Hospital Kandy from January 2022 to June 2023 were selected. The composition of the inflammatory infiltrate, the presence of interface hepatitis (IF), emperipolesis(E), hepatocyte rosettes(R), sinusoidal lymphocytic infiltration and the stage of chronic hepatitis were evaluated.

Results: Twenty-five liver biopsies that were stained routinely were analysed. All biopsies showed portal tract inflammation and interface hepatitis with lymphocytes (100%). Definitive plasma cells were present in 20 % (n=5). 84% showed hepatocyte rosette formation and emperipolesis. Sinusoidal lymphocytes were seen in 100%. Established cirrhosis/stage 4 disease was seen in 96%(n=24).

Discussion and conclusion: The main histological features (IF, E and R) in international scoring systems (The revised International Autoimmune Hepatitis Group (IAHG) modified scoring system-1999 and simplified scoring system of the IAHG-2008) were seen in most of our biopsies. Plasma cells were not prominent in the infiltrate. Lymphocytes were seen in the sinusoids in all biopsies and may be a morphological feature that favours AIH. The features highlighted in our study may have value in diagnosing AIH, although these should be validated by a case-control study with a larger sample.

Keywords: autoimmune hepatitis, emperipolesis, interface hepatitis

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