

Research paper 13

RP 13

The histomorphological patterns of liver disease in a cohort of Sri Lankan children

A.G.B.A.K. Jayarathna¹, S. Gunarathne², J. Hewavisenthi¹¹Department of Pathology, Faculty of Medicine, University of Kelaniya, Sri Lanka²Lady Ridgway Hospital for Children, Colombo, Sri Lanka

Introduction: Histological assessment of the liver remains an essential tool in establishing the diagnosis of paediatric diseases in combination with other clinical and laboratory data. Specific histological patterns can help in the diagnosis of liver disease.

Objective: The aim of this study was to describe the histological patterns identified in paediatric liver biopsies in a cohort of Sri Lankan children.

Methodology: This was a retrospective study conducted at the Lady Ridgway Hospital for Children between January 2020 and December 2021. Biopsies with overlapping histological patterns were excluded. Haematoxylin and eosin and special stain slides (Masson trichrome, PAS, PASD) were examined. Histological patterns were classified as hepatitic, ductopenic/biliary (DB), steatotic, cholestatic, neoplastic, storage, fibrotic, and vascular.

Results: A total of 112 liver biopsies were reported at the centre during the study period. The commonest histological pattern was the hepatitic pattern (32.2%, 36/112), followed by the DB type (31.25%, 35/112). Thirty-two cases (91.5%, 32/35) were diagnosed as biliary atresia. The steatotic pattern was seen in 15.17% (17/112) of liver biopsies, and the commonest causes were malnutrition/parenteral nutrition and steatohepatitis. 6.25% (7/112) of biopsies showed a cholestatic pattern, and three were diagnosed as progressive familial intrahepatic cholestasis. 5.35% (6/112) showed a neoplastic pattern, of which four were malignant. 4.46% (5/112) exhibited a storage pattern. The commonest was glycogen storage disorder. A fibrotic pattern was noted in four liver biopsies (3.57%, 4/112). Two were reported as minor vascular alterations (1.78%, 2/112).

Conclusion: The pattern approach was useful and practical for the diagnosis of paediatric liver diseases when combined with clinical and laboratory data. In our study, hepatitis and DB patterns were the most frequent histological patterns.

Keywords: morphological pattern, liver diseases, steatosis

Corresponding author: Dr Achini Jayarathna
Department of Pathology, Faculty of Medicine,
University of Kelaniya, Sri Lanka
achanijayarathne@gmail.com



This is an open access article licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/). (CC BY-SA 4.0), which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are attributed and materials are shared under the same license.