

PATHOLOGICAL CHANGES OF THE LIVER IN HEPATOCELLULAR INJURY***Rakhimov Khamidullo Odiljonovich****Assistant, Department of Pathological Physiology, Andijan State Medical Institute*

Abstract: The liver is a central organ responsible for metabolism, detoxification, and protein synthesis. Pathological alterations of the liver occur due to toxic, infectious, autoimmune, and metabolic factors. Hepatocellular injury leads to structural changes, including hepatocyte necrosis, steatosis, fibrosis, and cirrhosis. This thesis aims to analyze the main histopathological changes of the liver during hepatocellular injury and their clinical significance.

Methods

A review of histological specimens from 20 patients with various liver pathologies (toxic hepatitis, viral hepatitis, and alcoholic liver disease) was performed. Hematoxylin-eosin and Masson trichrome staining were used to evaluate parenchymal and stromal changes.

Results

Common pathological findings included hepatocyte ballooning, inflammatory infiltration of portal tracts, macrovesicular steatosis, and progressive collagen deposition leading to fibrosis. Cirrhotic nodules were observed in advanced cases.

Conclusion

Liver pathology demonstrates a progression from reversible hepatocellular injury to irreversible architectural changes such as cirrhosis. Early histological assessment is essential for timely diagnosis and therapeutic intervention.