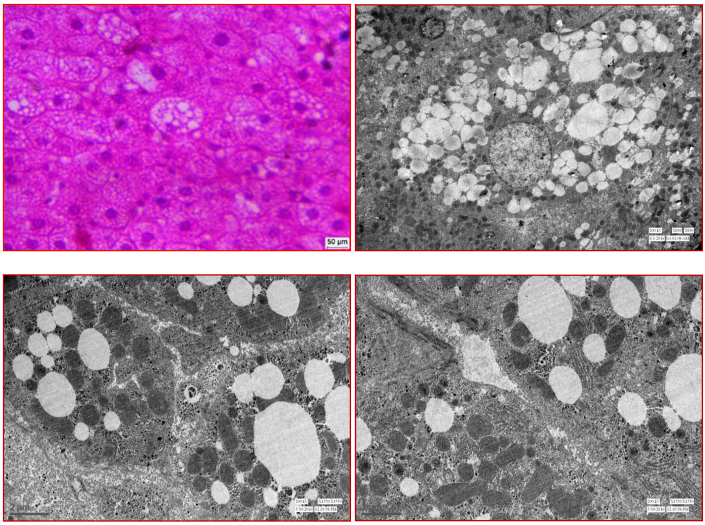
A Handbook on

Hepatotoxicity



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Chapter 3

Histological Pattern of Hepatotoxicity

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The liver is the main site for metabolism and biotransformation of exogenous chemicals; thus, liver cells are exposed to considerable amount of these chemicals and lead to liver dysfunction, cell injury, and even organ failure. Liver has multiple cell types, performs numerous functions and can respond in different ways as per acute and chronic exposure to toxicants. Certain medicinal agents at overdoses and sometime within therapeutic ranges, may injure the organ. Other chemical agents, such as those used in laboratories and industries, natural chemicals (e.g., microcystins) and herbal remedies can also induce hepatotoxicity. Hepatotoxicants are those chemicals which induce liver injury. More than 900 drugs have been implicated in causing liver injury. Drug-induced liver injury is accountable for about 5% of all hospital admissions and about 50% of all acute liver failures. To recognize potential liver cell dysfunction and injury at histological level is very useful and necessary tool for the assessment of mechanisms of cell and organ injury.

Alteration in the histological featured are classified on the basis of effect of chemical on liver: