

## THE SIGNIFICANCE OF PARENCHYMAL CHANGES IN PREDICTING SUBSEQUENT EPISODES OF ACUTE REJECTION

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**Objectives:** It is suggested that centrilobular alterations may be possible indicators of subsequent episodes of acute rejection or early chronic rejection or graft loss. The purpose of this study was to identify any differences between the histopathological findings in the first rejection episode biopsies in cases with and without subsequent episodes of acute rejection.

**Methods:** We assessed the predictive value of centrilobular necrosis, central vein endothelialitis, pericentral inflammation, hepatocyte ballooning, cholestasis, hepatocyte apoptosis, lobular inflammation, presence of portal eosinophils as well as characteristic portal tract features in the poor response to anti-rejection treatment. The findings in twenty two cases with a single acute rejection episode (Group 1) were compared with those of 23 with multiple episodes (Group 2). Only the first biopsy samples of the latter group were taken into consideration.

**Results:** Time to the first episode of acute rejection, rejection activity index (RAI) were similar (63 vs 62 days RAI:5.2 vs RAI: 6.1) between the 2 groups. Hepatocyte apoptosis(72% vs 78%), hepatocyte ballooning(77% vs 82%), central vein endothelialitis (59% vs 69%), were common features in both groups (group 1 and group 2 respectively). The incidence of pericentral inflammation, centrilobular necrosis and presence of portal eosinophils were significantly higher in the group 2 (78% vs 50%), (65% vs 27%) and (95% vs 68%) ( $p < 0.05$ ).

**Conclusions:** Patients with pericentral inflammation and centrilobular necrosis during the first episode of acute rejection may be more likely to have subsequent episodes of acute rejection.