

The Effects of Ankaferd on Liver Regeneration after Partial Hepatectomy in Rats

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Abstract

Background: In this study, we aim at investigating the effect of post partial hepatectomy Ankaferd blood stopper (ABS) on liver regeneration in rats.

Methods: Twenty-four rats were included in our study divided into three groups. (Group A = (Sham) 8 rats, Group B = (control) 8 rats, Group C = (experimental) 8 rats). Two-thirds hepatectomy was employed in all rats. Intraperitoneal 0.9% saline was administered to the rats in the control group, and intraperitoneal 1 ml Ankaferd was administered to the rats in the experimental group. The rats were sacrificed on the 7th day. Tissue samples were taken from the liver tissue for histopathological evaluation.

Results: The number of mitosis and the cytoplasmic vacuolization/hdyropic degeneration scores were statistically different between the groups (Group A: 11.63 vs Group B: 17.00 vs Group C: 8.88 (p:0.028) and Group A: 8.56 vs Group B: 16.63 vs Group C: 12.31 (p:0.034), respectively). The presence of binuclear hepatocytes score was p: 0.258 and disorganized distribution in cell proliferation in the parenchyma score was :0.076; There was no statistical difference between the groups. The number of mitosis was p:0.116 for Group A-B, p:1.00 for Group A-C and p:0.017 for Group B-C

Conclusions: Positive results indicating an increase in liver regeneration due to Ankaferd were not obtained in our study.

Key words: partial hepatectomy, rat model, Ankaferd, regeneration, cytoplasmic vacuolization