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The Study of Effect of Static Magnetic Field on The Liver Function Pre- and Post Partial Hepatectomy In Rabbits

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1. Abstract

The static magnetic field SMF was applied on the abdominal area, above the liver region to know the effect of SMF on the liver function. Twenty four rabbits were used in present study. The experimental study was designed to divide the animals to two groups, each one also divided to two subgroups based on the application of SMF and partial hepatectomy. 2nd subgroup of 1st group and 2nd subgroup of 2nd group subjected to SMF (400 Gauss or 0.04 T), and the 1st and 2nd subgroup of 2nd group were performed partial hepatectomy at caudate lobe of liver, whereas 1st subgroup of 1st group left as control group. Dose of SMF, blood parameters and biochemical GPT and GOT were estimated. The results of blood and biochemical parameters showed significant values at $P \leq 0.05$, except GPT value of 2nd subgroup of 2nd group showed highly significant at $P \leq 0.001$. In conclusion the magnetic field has ability to change liver physiology to better condition with low SMF, but combination of SMF and partial hepatectomy was undesirable.

Key words: Static magnetic field, Blood parameters, GOT, GPT, Hepatectomy, Rabbits

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