Rat model of hepatic ischemia: Reperfusion injury

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Objective: To investigate the hepatic ischemia -reperfusion injury in rats.

Methods: According to the reperfusion time, the rats were divided into four groups, sham, ischemia -reperfusion 2 h, 4 h, 24 h group. The blood vessels supplying the median and left lobe were occluded by micro-vascular clamp to achieve 70% liver ischemia for 1 h, the change of liver biochemical markers and pathology were assessed.

Results: The survival rate was 100%. Compared with the control group, the hepatic 70% ischemia-reperfusion resulted in severe liver injury with marked elevation in serum aspartate aminotransferase, alanine aminotransferase, tissue malondialdehyde and histological scores (P<0.05). And after 4 h reperfusion, the insult was maximal.

Conclusion: Reproducible model of hepatic 70% ischemia-reperfusion injury can be induced by incarcerating the blood vessels of the median and left lobe in rats, and it is recommended to make the optimal hepatic ischemia-reperfusion injury with 4 h reperfusion following ischemia for 1 h. Therefore, this model is useful for the research of hepatic ischemia-reperfusion injury in clinical, which is simple at technical.

Biography

Shuxia Li is a Pharmacist in Dept. of Pharmacy, the First Affiliated Hospital, Sun Yat-sen University, China. She completed her medical education in China in 1991 and obtained her MD in 1997 from the University of Tuebinger, Germany. Her research has focused on drug metabolism.

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