

عنوان مقاله:

Establishment of a novel rat model of severe acute cholangitis

محل انتشار:

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خلاصه مقاله:

Objective(s): This study aimed to establish a novel non-binding, reversible rat model of acute cholangitis of the severe type (ACST). Materials and Methods: Twenty-six rats were randomly divided into the sham-operated group (n=۱۳) and the ACST group (n=۱۳). All rats were intubated with a modified catheter through the external jugular vein. The ACST model was established by ligation of the distal bile duct, placing one end of a modified catheter in the common bile duct, and then injecting lipopolysaccharides from the other end of the catheter and sealing it. The common bile duct pressure was measured before and at ۰, ۲۴, ۴۸, and ۷۲ hr after the model was established; similarly, the levels of serum total bilirubin (TBIL), alanine aminotransferase (ALT), and tumor necrosis factor (TNF)- α were measured at ۰, ۱۲, ۲۴, and ۴۸ hr after the model was established. Results: Pathological examination of liver tissues was carried out at ۲۴ and ۷۲ hr. The common bile duct pressure increased gradually after the operation. Serum levels of TBIL, ALT, and TNF- α in the ACST group progressively increased and were significantly higher than those in the sham-operated group, at each time point ($P < ۰.۰۵$). Conclusion: Obvious pathological changes were observed in the liver tissue of rats in the ACST group. This model appears to reflect the early course of human ACST and thus, can be used in postoperative experimental studies of ACST.

کلمات کلیدی:

Acute cholangitis of severe- type, ALT, Common bile duct pressure, Rat model, TBIL, TNF- α

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