عنوان مقاله:

Laparoscopic left hemihepatectomy combined with right lateral hepatic lobectomy in pigs: surgical approach and comparative study of the inflammatory response versus open surgery

محل انتشار:

گفتمان پژوهش دامپزشکی, دوره 12, شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

This study describes a left hemihepatectomy combined with a right lateral hepatic lobectomy. It compares the inflammatory response associated with laparoscopic hepatectomy (LH group, n = ۷) with conventional open hepatectomy (OH group, n = ۷). Blood was collected before surgery as well as ۱, ۲, ۳, ۵, and ۷ days after surgery to determine the white blood cell count and levels of serum cortisol (COR), interleukin-۶ (IL-۶), and C-reactive protein (CRP). The left hemi-hepatectomy combined with a right lateral hepatic lobectomy was completed in miniature pigs. The average operative time was ۱۳۹.۰۰ ± ۹.۰۷ min, which was longer than that in the OH group (۱۲۱.۶۷ ± ۳.۰۲ min). The length of surgical incision associated with the OH group was ۱۷.۹۳ ± ۱.۰۹ cm, significantly longer than that related to the LH group (۵.۱۰ ± ۰.۱۷ cm). The estimated mean blood loss in the LH group was ۱۳۶.۴۳ ± ۶۳.۲۴ mL, which was significantly lower than that in the OH group. No severe complications (e.g., massive bleeding, bile leakage, and air embolism) were reported. The CRP levels, COR, and IL-۶, increased significantly in the OH group and then slowly returned to their preoperative levels. A postoperative laparoscopic exploration revealed that the incised portion of the liver adhered to the omentum, but no additional abnormalities were observed. These findings indicate that a ۴-trocar method for laparoscopic left hemihepatectomy combined with a right lateral hepatic lobectomy is safe and feasible. The inflammatory response for those receiving LH are lower than that for those receiving OH. This porcine model can be used as a research analog for liver disease and regeneration.

کلمات کلیدی:

Extensive hepatectomy, Inflammatory response, laparoscopy, Pigs