P031 OPEN VERSUS LAPAROSCOPIC INCISIONAL HERNIA REPAIR: A NATIONWIDE DATABASE STUDY

Nadia Henriksen¹, Hans Friis Andersen², Lars Nannestad Jorgensen³, Frederik Helgstrand⁴
¹Herlev Hospital, Gastro Unit, Herlev, Denmark, ²Horsens Hospital, Dept. of Surgery, ³Bispebjerg Hospital, Digestive Disease Center, ..., Copenhagen NV, Denmark, ⁴Zealand University Hospital, Dept. of Surgery

Aim: Although laparoscopic repair of incisional hernias decreases the incidence of wound complications as compared with open repair, there has been a rising concern related to intraperitoneal mesh placement. The aim of this study was to examine outcomes after open or laparoscopic elective incisional hernia mesh repair on a nationwide basis.

Material and Methods: A merge of data between the Danish Hernia Database and the National Patient Registry provided data on perioperative information, 90-day readmission, 90-day reoperation for complications, and long-term operation for hernia recurrence from 2007-2018.

Results: A total of 3,090 (57.5%) and 2,288 (42.5%) patients were operated on laparoscopic and open approach, respectively. The defect was closed in 27.9% (865/3,090) of the laparoscopic cases. The median follow-up time was 4.0 (1.8-6.8) years. Rates of readmission (16.2%, 502/3,090) and 90-day reoperation for complications (7.0%, 216/3,090) and re-operation for complication (19.3%, 216/3,090) were significantly lower for laparoscopic compared to open repairs (19.3%, 442/2,288, P = 0.003 and 12.5%, 288/2,288, P < 0.001). Re-operation for bowel obstruction or bowel resection was twice as high after laparoscopic repair (0.6%, 20/3,090) compared with open repair (0.3%, 6/2,288, P = 0.044). Patients were significantly less prone to undergo repair of recurrence following laparoscopic compared with open repair of defect widths 2-6 cm (P = 0.002).

Conclusions: Laparoscopic intraperitoneal mesh repair for incisional hernia should still be considered for fascial defects between 2 and 6 cm, because of decreased incidences of early complications and repair of hernia recurrence compared with open repair.