Retained pack after laparotomy. Risk factors, presentation and ideas for prevention

Abstract

Aim of study: To identify risk factors that may play a role in retained pack in surgical patient underwent laparotomy, to discuss presentation and ideas of surgeons in performing a safety checklist that can be used to minimize or prevent such complication.

Design: Retrospective, matched case control study.

Setting: Mosul medical Center at Al-jamhori and Al-batool Teaching Hospitals.

Participants: 53 patients with retained pack in their abdomen after laparotomy.

Main outcome measures: we reviewed medical records by using special formula to collect data from 37 consultant general surgeons, all with more than 10 years of official, legal and scientific responsibility. They were asked to give their experience in dealing with retained pack after laparotomy (operation that dealt with intra-abdominal viscera via abdominal wall incision excluding laparoscopic procedures) during the period between January 2000 and January 2010. Surgeons were asked to put a strategy in form of a checklist that can be used in prevention of this complication. We used a retrospective case–control design. Patients with cases were those in whom pack had been left after a laparotomy procedure; controls were patients who had undergone the same type of operations without retained pack during the same period.

Results: The study included 53 patients with retained pack in their abdomen after laparotomy, reported by 37 consultant general surgeons, from a total of 37436 laparotomies during the period between January 2000 and January 2010 at Al-jamhori and Al-batool Teaching Hospitals, which are the main surgical and gynecobstetrical hospitals respectively in Mosul Medical Center. The age varied from 14 to 61. There were 22 female and 31 male patients; the body mass index was more than normal in 21 patients. Emergency operation reported in 33 and elective in 20 patients, they were super major operations in 36 and major in 17 cases. Retrospective operative reports were available for 45 patients, They showed unexpected finding with operative plan changes in 28, sever bleeding that needed unorganized intra-operative blood transfusion in 19, iatrogenic organ trauma in 11 and intra-operative anesthetic complication in 5 patients. There was no record about change of staff during the operations as well as no record about counting packs at the beginning or at the end of operations. In 15 cases more than one surgical team were involved. The median date of pack detection was 24 day after surgery (range, day of surgery to 2.5 years after surgery), in 13 cases, the retained pack resulted in intestinal obstruction, abdominal mass in 10, chronic infected discharging wound in 9, small-bowel fistulae in 8, intra-abdominal abscess in 7, visceral perforation in 3, obstructive jaundice in 3 and in 1 case, the retained object resulted in death. Forty seven patients with retained pack required reoperation.

Conclusion: Emergency, super major and change in strategy of operation as well as increase body mass index are risk factors for retained pack. Intestinal obstruction, abdominal mass and chronic infected discharging wound, are the most common sequel. A safety checklist was obtained in a hope to be used and become globally acceptable to prevent such complication.