



Peritoneal catheter placement with concomitant hernia repair and its effect on the type of laparoscopic technique of catheter insertion.

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Background

Peritoneal catheter malposition is an annoying non-infectious complication of peritoneal dialysis. In our unit we use to insert most peritoneal catheters laparoscopically. Part of operations is done using modified technique with intraabdominal fixation and the other operations are done without catheter fixation. The decision about choice of technique is done by surgeon in the process of operation.

By our observation fixated catheters are less prone to malposition than non-fixated one.

Abdominal hernias are preferred to be repaired before start of peritoneal dialysis. Concomitant hernia repair with peritoneal catheter placement is a common practice and we also used to do it.

Purpose: To verify if a need in concomitant hernia repair effects a surgical decision about a technique of laparoscopic catheter placement and perhaps a risk of catheter malposition.

Methods

2 straight Tenckhoff PD catheters were placed in 39 consecutive patients with ESRD from November 2011 to March 2017.

Thirty-three catheters were placed using the modified technique (group 1). The technique consists of laparoscopically-guided intra-abdominal fixation of the PD catheter tip at one point by using suture passer hernia forceps. Nine catheters were placed laparoscopically without fixation (group 2).

In 6 patients concomitant hernia repair (umbilical or unilateral inguinal) was performed.

The same surgeon performed all operations. Individual information including sex, age, co-morbidity with diabetes, catheter survival, risk of catheter migration, incidence of concomitant hernia repair was collected and analyzed.

Results

The mean follow-up period was 21.7 months (SD 15.5) in group 1 and 30.3 months (SD 19.8) in group 2. 5 patients in group 1 (15.2 %) and 1 patient in group 2 (11.1%) underwent hernia repair at the time of catheter insertion. There was no significant difference between the groups in terms of age, sex, diabetes, and catheter survival. The risk of catheter tip malposition was greater in a group 2 (OR 9.663, p-value 0.057). Need for concomitant hernia repair did not effect the choice of laparoscopic technique of catheter insertion: modified vs regular (p-value 1). None of the patients in hernia repair group developed catheter malposition during follow up period

Conclusion

Laparoscopic peritoneal catheter placement with concomitant hernia repair is a common practice, helps to avoid additional surgery and anesthetizing. It can be done safely with modified laparoscopic technique and does not prevent the possible gain of this procedure in term of catheter migration risk.

