Laparoscopic Ventral Hernia Repair at Department of Surgery of General Hospital in Slavonski Brod

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CASE REPORT

SUMMARY

Laparoscopic technique for ventral hernia repair was introduced in 1993. We have tested this approach and observed the benefits of laparoscopic technique for ventral hernia repair, through advantages such as rapid healing, less pain, early discharge from hospital. During period from January 1st 2008 to October 1st in the year 2010, we have operated 153 ventral hernias, with open approach on our department. There were 65 female and 88 male patients. Median age for male patients was 50.85 years and 54.03 for female patients, with mean age for both groups 51.7. Median length of hospital stay was 5.88 days (5.25 days for male patients and 6.62 days for female patients). In same period there were 25 laparoscopic ventral hernia repairs (8 female patients and 17 male patients). Median age for female patients was 58.25 and for male patients 49 years. Median length of hospital stay for female patients was 5.31 days and for male patients 3.24, in total 3.8 days. Further studies with longer follow up, prospective, randomized sample are required to confirm our observation, but recent data reports significant lowering of recurrence rates.

Key words: ventral hernia, laparoscopic treatment.

1. INTRODUCTION

Ventral hernia repair is frequently performed operation in general surgery, because ventral hernias after laparotomy are reported to be 11% to 20% (1, 2). These hernias can be challenging to repair with recurrence rates up to 49% for sutured and up to 10% for mash repair, creating a large operative workload on abdominal surgeon. Selection of method for ventral hernia repair remains a disputable issue. The type of repair is currently based on surgeon’s preference but laparoscopic approach is gaining popularity due to application of minimally invasive principles (1). Seeking for a reduction in invasiveness and postoperative pain, on our department in last two years we have tested feasibility and advantages of laparoscopic approach for treatment of ventral hernias. Our aim is to present our first experiences.

2. METHOD AND MATERIAL

Our surgical approach is: All laparoscopic ventral hernia repairs were done with standard laparoscopic equipment and all instruments were already available on our department, thus avoiding requirement of new techniques and equipment. Antibiotic prophylaxis was routinely used. Using Verres or Hasson technique in left abdomen, we create pneumoperitoneum up to 14 mmHg. Placement of three ports, 10 mm optical trocar and two 5mm trocars, depends on hernia position. (Figure 1) During the procedure 0 and 30 degree optic scopes are used. Adhesiolisis is performed and sac contents were gently reduced to abdominal cavity. (Figure 2) Both extra and intra abdominal measurement of...
hernia size is done. (Figure 3). Skin is marked to suite overlap of 5 cm and mesh is tailored.

We use Proseed (Johanson & Johanson) and Parietex Composite Mesh (Covidien) protheses (Figure 4). Fixing is achieved by double crown technique using absorbable spirals (AbsorbaTuck 5mm, Covidien) (Figure 5). Trocar sites are closed in usual manner. All the patients were given a standard postoperative analgesia and oral fluids on a first day.

3. RESULTS
In period from January 1st 2008. to Oct. 1st 2010. We have operated 153 ventral hernias, with open approach on our department. There were 65 female and 88 male patients. Median age for male patients was 50, 85 years and 54, 03 for female patients, with mean age for both groups 51, 7. Median length of hospital stay was 5, 88 days (5, 25 days for male patients and 6, 62 days for female patients). In same period there were 25 laparoscopic ventral hernia repairs (8 female patients and 17 male patients).

Two patients were converted to open approach due to adhesions and difficulties in achieving pneumoperitoneum. These two patients are not included in laparoscopic group. Median age for female patients was 58, 25 and for male patients 49 years.

Median length of hospital stay for female patients was 5, 31 days and for male patients 3, 24, in total 3, 8 days. In both groups there were no major intraoperative complications and no procedures led to early readmission. No mortality was recorded for both groups.

Postoperative minor complications such as seroma, urinary retention, minor wound infection and delayed bowel movement were treated conservatively.

4. DISCUSSION
Laparoscopic technique for ventral hernia repair was introduced in 1993 (2). We have tested this approach and observed the benefits of laparoscopic technique for ventral hernia repair, through advantages such as rapid healing, less pain, early discharge from hospital, thus offering socioeconomic advantage. These advantages suggest that laparoscopic ventral hernia repair can be considered as a day case surgery (6).

Further studies with longer follow up, prospective, randomized sample are required to confirm our observation, but recent data reports significant lowering of recurrence rates (1, 3).

REFERENCES