

AS22-7

LAPAROSCOPIC REPAIR IN FATTY INGUINAL HERNIA

Abdullah Aldohayan¹, Fahad Bamehriz², Omar Al-Obaid³

¹Bariatric Surgery, King Saud University Hospital, Saudi Arabia

²Bariatric Surgery, Fahad Bamehriz, Saudi Arabia

³Bariatric Surgery, Omar Al-Obaid, Saudi Arabia

Background and Objective: Inguinal hernia is abnormal protrusion of intra-abdominal tissue through abdominal defect in the groin, with sac containing bowel or omentum. Hereby we reporting an inguinal hernia with sac loaded with extra peritoneal fat creating abdominal defect in the groin.

Method: Standard laparoscopic examination of the inguinal hernia revealed defect either medial or lateral of inferior epigastric vein in 3 patients no defect is noticed however, pre-operative diagnosis is confirmed. Dissection of the peritoneum revealed the SAC and defect. Optilene mesh is 15x15cm polypropylene to cover the defect.

Results: During 3 years of Laparoscopic op 3 patients has that type of hernia, one indirect and 2 direct inguinal hernia.

Conclusion: In the presence of clinical diagnosis and absence of Laparoscopic of defect finding, dissecting the peritoneum is needed to avoid second operation. Fatty inguinal hernia is new laparoscopic finding will encounter surgeon in the future and should be in mind during laparoscopic management of symptomatic hernia.

AS22-8

Sacless groin hernia. Should it be treated as a true hernia? About 7 cases and review of literature

Bouchiba Nizar, Tamer Elbakery, Ahmad Elfaki, Mohamed Soliman Elakkad

Department of Surgery, Al Wakra Hospital Hamad Medical Corporation, Qatar

Introduction: The dogma of considering that a groin hernia is present only when a peritoneal sac is identifiable is now abandoned since many cases of hernias with intact peritonea was reported especially after the generalization of laparoscopic approach. The etymology used to describe these findings varies from sacless hernia, to sliding fatty hernia or lipoma of the cord and round ligament. It is a surprising situation for the surgeon and the management is still controversial, for certain authors the resection of the lipomas with mesh repair must be the rule, others prefer the conservative management for anatomical and medico-legal reasons.

Case reports: The authors report about 7 cases (6 men and 1 women, with an average age of 41) operated with the diagnosis of groin hernia (4 right side, 2 left side and 1 bilateral). 2 patients by open technique and 5 patients by laparoscopic approach (one of them robotic -assisted). Preoperatively 3 patients had only clinical assessment, 4 patients were investigated by ultrasound and 2 patients had groin MRI. During the surgery no peritoneal sac was found .A conservative management was decided in 2 cases, 4 patients had a mesh repair, and one had excision of lipoma without mesh placement. Through the result of this short case series and a review of literature the authors will discuss the optimal management of these kinds of hernias, the best preoperative investigations and the surgical options according to the particularities of each case.

AS23-1

Anterior hernia repair is better than laparoscopic hernia repair

Takehiro Hachisuka

Department of Surgery, Yokkaichi Municipal Hospital, Japan

Introduction: Tension free hernia repair using polypropylene mesh was introduced by Lichtenstein in 1970's. In our institution, mesh plug technique was introduced in 1995 and the results are feasible as previously described. In 2010 anterior preperitoneal technique using PolySoft was introduced to direct hernias. In 2012, laparoscopic hernia repair (TAPP) was introduced to bilateral patients and young adults. From our experiences of more than 4000 cases of groin hernia repair, we insist that anterior hernia repair is much better than laparoscopic repair, except some selected cases.

Methods and Results: Laparoscopic repair (TAPP) is only indicated to the patients of bilateral groin hernia and the young adults of younger than 70 y. o. who need quick recovery to physical labor. To the indirect cases of less than 2cm-hernia defect, mesh plug technique using Light Perfix Plug is performed. To direct and large indirect cases, anterior preperitoneal technique using PolySoft is performed. The results are both acceptable.

Cost: In Japanese medical system, the medical fee of laparoscopic repair is 4 times as much as anterior repair. I do not deny the advantages of laparoscopic hernia repair, I insisit that surgeons should select the appropriate patients to more expensive technique, because from the standpoint of economics, 4-fold cost should bring 4-fold benefits.

Conclusion: Considering all factors in hernia surgery, anterior hernia repair is better than laparoscopic hernia repair. Surgeons try to find the most appropriate cases for laparoscopic repair.

AS23-2

Outcomes after Inguinal Hernia Repair: A Singapore Institution's Experience

Aung Myint Oo¹, Bodi Chinna Rao², Tian Qin Cao², Kaushal Sangvi¹, Aaryan Koura¹, Jaideep Raj Rao¹

¹Department of General Surgery, Tan Tock Seng Hospital, Singapore

²Yong Loo Lin School of Medicine, National University of Singapore, Singapore

Background: The main aim of this study is to investigate whether there are significant differences in outcomes between laparoscopic and open inguinal hernia mesh repair in a Singapore institution.

Methods: This is the retrospective study of 435 patients who underwent inguinal hernia mesh repair from Jan 2014 to Dec 2014 in Tan Tock Seng Hospital, the second largest general hospital in Singapore.

Results: Majority of the patients were male (95.4%, n=415) and most of the hernias were unilateral (82.8%, n=360). 94.5% (n=411) of the repairs were done as elective surgeries. Of the unilateral hernias, 66.1% (n=238) were indirect, 23.6% (n=85) were direct and 10.3% (n=37) were pantaloon hernias. 44.8% (n=195) of all repairs were laparoscopic repairs, while 55.2% (n=240) were done using the open approach. Open repair resulted in overall longer operating time (89.0 minutes vs 84.9 minutes, p= 0.215) and greater post op pain (19.6% vs 14.9%, p = 0.207), while laparoscopic repair resulted in higher rates of seroma and haematoma formation (7.9% vs 17.9%, p = 0.002) as well as higher recurrence rates (1.7% vs 2.6%, p = 0.523). The overall recurrence rate was 2.1% (n=9).

Conclusion: The outcomes of laparoscopic and open repair were mostly comparable except for higher rates of seroma and haematoma formation in laparoscopic repair.

AS23-3

Clinical Comparison of Transabdominal Preperitoneal Approach versus Conventional Open Procedure for Inguinal Hernia

Hiroaki Shiraishi, Takeshi Yano, Shigeaki Aihara, Kazuhide Kumagai

Department of Surgery, Asoka Hospital, Japan

Purpose: We compared to clear the advantage of TAPP with conventional open procedure.

Material and Method: We had 52 conventional cases and 89 TAPP cases. TAPPs were separated at the half and decreased tacks within 5 pieces in the second half.

Result: A corona mortis injury was looked in Conventionals. A testicular artery injury and a bladder injury were looked in the first half. We didn't look such intraoperative damages in the second half. But there was no difference. Wound infection was appeared in 5.8% of Conventionals. But it couldn't see in TAPPs. (p=0.04) Subcutaneous hematoma was appeared in 5.8% of Conventionals. But it couldn't see in TAPPs. (p=0.04) The first half of seroma was shown in 9.1% and the second half showed in 17.8%. But it couldn't see in Conventionals. (p<0.01) Conventionals had chronic pain in 15.4%. The first half had it in 4.5% and second half had in 8.9%. There was no difference in TAPPs. But chronic pain of the first half was obvious lesser than Conventionals. (p=0.08 OR 3.8) Conventionals had discomfort in 13.5%. The first half had it in 9.1% and the second half had in 4.4%. Discomfort of the second half was lesser than the first half. (p=0.38 OR 2.2) Further it was obviously lesser than Conventionals. (p=0.13 OR 3.3)

Conclusion: TAPP could undergo safely and reduce chronic pain and discomfort. Decreasing tack could reduce discomfort.

AS23-4

Tension-Free Inguinal Hernia Repair: a Retrospective Study in Single Center

Yun Ling, Hao Liu

Department of General Surgery, the First Affiliated Hospital, Medicine College of Xi'an Jiaotong University, China

Recently, a retrospective review is conducted among 669 patients with tension free herniorrhaphy. The laparoscopic group including 145 patients has longer operation time, and the open herniorrhaphy group including 554 has longer hospital stay. Two of recurrence which were operated by laparoscopic surgery and the other fifteen were open surgery, but no statistically significant between two groups. There were eight laparoscopic surgery patients and nineteen open surgery patients complaining of incision discomfort, but did not reach statistical significance. Four postoperative scrotal hydrocele cases were in the laparoscopic group and two cases were in the open group, there are significant difference between two groups. Twenty-one laparoscopic surgery patients and seventy open surgery patients suffering from postoperative chronic pain, but also have not statistical significance. Compare Bard-3DMax mesh with Anatomical Mesh, both the recurrence rate and operation time have no statistically difference, but the incision discomfort was higher in the anatomical mesh. The Bard-3DMax mesh group has longer hospital stay. Plug-mesh, Modified Kugel mesh and Self-Gripping mesh, three groups of the mean operative time have no statistical significance. The hospital stay of self-gripping mesh group was significantly less than other two groups, and the plug-mesh group was the longest, following MK group. In terms of recurrence and postoperative complications, three kinds of mesh had no statistical difference.

Laparoscopic herniorrhaphy is as effective as the open tension free herniorrhaphy in inguinal hernia repair surgery, and it has shorter length of hospital stay. Different meshes have no significant difference in recurrence and postoperative complications.

AS23-5

Laparoscopic transabdominal preperitoneal repair versus mesh plug repair for bilateral primary inguinal hernia: a retrospective observational study

Yuichi Takayama, Yuji Kaneoak, Atsuyuki Maeda, Yasuyuki Fukami, Takamasa Takahashi, Shunsuke Onoe, Masahito Uji

Department of Surgery, Ogaki Municipal Hospital, Japan

Background: A few studies comparing laparoscopic and open techniques reported that an open repair with mesh is the optimal operation for unilateral primary hernia. The aim of this study is to compare the outcome of laparoscopic transabdominal preperitoneal repair (TAPP) versus mesh plug repair (MP) for bilateral primary inguinal hernia.

Methods: This was a retrospective study of 102 patients with bilateral primary inguinal hernia between January 2008 and July 2016. Of these patients, 43 underwent TAPP under general anesthesia, while 59 underwent MP under local anesthesia. Clinical characteristics and surgical outcomes were compared between TAPP and MP.

Results: In the TAPP group, patients were significantly younger (64 ± 13 vs 74 ± 10 years, $p < 0.001$) and there were less patients with comorbidity (40 vs 64%, $p = 0.013$). There was no difference in the operation time (101 vs 92 min, $p = 0.082$) and the incidence rate of postoperative complications (12 vs 12%, $p = 0.97$) between the two groups. Recurrence occurred in 1 patient (1.2%) in the TAPP group and 5 patients (4.2%) in the MP group ($p = 0.17$). Wound infection occurred in 1 patient (0.9%) in the MP group. At one month after surgery, there were less patients with pain in the TAPP group (16 vs 31%, $p = 0.093$) and less patients with medication of analgesics (4.7 vs 15%, $p = 0.074$).

Conclusion: TAPP for bilateral primary inguinal hernia is a safe and feasible procedure without increase in operation time, and rates of complication and recurrence.

AS23-6

A prospective comparison of preperitoneal tension-free open herniorrhaphy with laparoscopic preperitoneal herniorrhaphy for the treatment of femoral hernias

Shuo Yang, Ying-mo Shen, Jie Chen

Department of Hernia and Abdominal Surgery, Beijing Chao-Yang Hospital, Capital Medical University, China

Objective: Though many techniques exist for hernia repair, controversy still exists as to the best management of femoral hernias. Thus, we compare the open preperitoneal approach with the laparoscopic technique for the surgical treatment of femoral hernias.

Methods: In this prospective study, 70 patients with primary unilateral femoral hernias were assigned randomly to a open preperitoneal group ($n = 35$; 8 males, 27 females) and a laparoscopic group ($n = 35$; 10 males, 25 females). EasyProsthesis MESH-D10 and EasyProsthesis MESH 15x15 (TransEasy Medical Technology Co., Ltd., China) were used, and all operations were performed by the same surgical team. Patients demographics, recurrence rate, duration of hospital stay, and complications were recorded. The duration of follow-up ranged from 6 months to 24 months.

Results: There were no differences between the groups with respect to surgical time, recurrences, postoperative duration of stay, or wound infection rate. There were no postoperative pain (visual analogue score > 4 , lasted 3 months) in the laparoscopic group, whereas there were 3 cases (8.6%) in the open group. In the laparoscopic group, there were 5 cases (14.3%) of seroma that occurred 3 and 7 days after operation and lasted 1 month. In the open group, 1 case (2.9%) of seroma occurred 7 days after operation.

Conclusions: Laparoscopic preperitoneal herniorrhaphy appears to be associated with a decreased postoperative pain and a major incidence of seroma formation compared with the open technique in the repair of femoral hernias.

AS24-1

The influence in chronic post-herniotomy pain and quality of life with fixation versus no fixation of mesh in TAPP hernia repair

Wei-ming Li, Da-li Sun, Shu-min Li, Yun-yun Cen, Peng-yuan Xu

Second Affiliated Hospital of Kunming Medical University, Department of Gastrointestinal Surgery, China

Aim: To demonstrate the influence in chronic post-herniotomy pain and quality of life (QOL) with fixation versus no fixation of mesh in TAPP repair. The incidence of chronic post-herniotomy pain and recurrence rate in the follow-up after 6 months were evaluated.

Methods: 72 adult patients with uncomplicated inguinal hernia were randomized into fixation group or non-fixation group. Data analysis included all patients who underwent inguinal hernia surgery at our surgical department within the period from October 1, 2015 to July 31, 2015, who fulfilled the inclusion criteria. Standard surgical technique was used. Return to activity, chronic groin pain and recurrence rates were assessed. QOL was assessed in all patients pre-operatively and at 6 months post-operative follow-up. SF-36 version2 questionnaire was used for QOL assessment.

Results: Seventy-two completed follow-up of 6 months, 40 in non-fixation group and 32 in fixation group. The incidence of moderate to severe chronic groin pain (which was taken as a VAS score ≥ 3) was less in non-fixation group than in fixation group at 6 months post-operative. There was no difference in QOL scores at pre-operatively. But QOL scores was higher in non-fixation group than in fixation group at 6 months post-operative, there was no recurrence in the two groups.

Conclusion: Fixation of the mesh for TAPP repair unnecessary. TAPP repair with no mesh fixation is safe, reduce the incidence of postoperative chronic pain and improve the quality of life.