

AFP2-4

## Analysis of the occurrence of female pelvic floor hernia patients and the levels of menopause and estrogen

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**Objective:** To study the relationship between the occurrence of female pelvic floor hernia patients and the levels of menopause and estrogen.

**Methods:** The female patients with pelvic floor hernia admitted in our hospital were divided into two groups, according to whether they have the menopause or not. The levels of estrogen were detected respectively in the two groups, and the difference was compared and analyzed.

**Results:** The estrogen levels of patients before and after menopause were significantly lower than normal control groups; ( $P < 0.05$ ). The difference is statistically significant.

**Conclusion:** Significant decrease of estrogen level is a high risk factor for women with pelvic floor hernia, and also is one of the important reasons of higher incidence of pelvic floor hernia for women after menopause.

AFP2-5

## Mesh removal for chronic mesh site infection after incisional hernia repair: three cases report and literature review

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**Purpose:** Herein, we report three cases of mesh removal for mesh site infection after incisional hernia repair and review the relevant literature.

**Methods:** The medical records including surgical videos of three patients undergone excision of the mesh for chronic mesh site infection were reviewed. The three patients aged 76, 77 and 58 years old respectively, with a history of six, five and four times open abdominal surgery respectively, including two to three times of hernia repair. Mesh site infection occurred four, two and eleven months later after the last hernia repair respectively, with the formation of sinus or deep abscess for two patients.

**Result:** The culture of all the three patients was positive. Systematic treatment with sensitive antibiotics, repeatedly debridement and drainage, even negative pressure wound therapy (NPWT) was given for all the patients. But the infection could not be completely cured. Finally, after discussion under the multiple disciplinary team (MDT) and the discussion with patients, excision of the mesh was applied for all the patients under local anesthesia, epidural anesthesia or general anesthesia, with small incision. All the patients were cured smoothly except case 1. Small intestinal fistula was occurred after the removal of the mesh. It took another twenty days to cure the fistula. No new hernia was observed after a follow-up from six months to 24 months.

**Conclusion:** Excision of the mesh with small incision could be applied safely for patients with chronic mesh site infection.

AFP3-1

## Unique Device for Laparoscopic Inguinal Hernia Repair Using ProGrip™ Laparoscopic Self-fixating Mesh

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ProGrip™ laparoscopic self-fixating mesh is composed of numerous microgrips that promote strong self-adherence to the abdominal wall. Due to this property of the mesh, this product does not require a fixation device that may induce pain, and it is useful in decreasing the recurrence of sliding hernia through its strong gripping ability. On the other hand, the drawback of this product is that it is difficult to handle, since it also clings easily to itself and to areas unintended for fixation. A unique device to resolve this issue is presented. Mesh insertion and deployment were performed using two different methods: the folding method and the rolling method. The attachment of ligation threads as a handle at several locations on the edge of the mesh was useful for the deployment of the mesh in both methods. With the rolling method, a thin polyethylene sheet was placed on the microgrip surface and rolled together, and then subsequently inserted into the body. The mesh was then unrolled for deployment such that the polyethylene sheet was sandwiched between the abdominal wall and the mesh. This allowed the operator to make minute adjustments for properly positioning the mesh. Subsequently, by gradually withdrawing the sheet upward and by fixing the mesh to the abdominal wall from the lower portion, the mesh could be fixed at the desired position. A thread for unrolling that is useful for the deployment of the rolled mesh was also developed. The rolling method was especially useful when the workspace was narrow.

AFP3-2

### Clinical research of Lichtenstein tension-free hernioplasty repair in adult patients with inguinal incarcerated hernia

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**Objective:** To investigate the preoperative management and clinical efficiency of Lichtenstein repair in adult patients with inguinal incarcerated hernia.

**Methods:** The clinical data of 86 patients with inguinal incarcerated hernia were analyzed retrospectively. All cases were repaired with Lichtenstein under local anesthesia and had emergency operation.

**Results:** The data included 59 male patients and 27 female patients with median age of 63 years. There were 8 patients with liver cirrhosis, and the Child-Pugh grades of liver function were grade B (6 cases) and grade C (2 cases). The operation was performed successfully in all patients. Segmental bowel resection with end-to-end anastomosis was performed in 38 emergency medical operations. The operative time was 20-120min (mean of 54min), and the postoperative hospitalization time was 8d (5-17d). There were 7 cases of skin ecchymosis of scrotum, no intestinal perforation, hepatic encephalopathy and upper gastrointestinal hemorrhage after operation. In this initial series of 24 cases without drainage tube in wound cavity, 10 cases of fat liquefaction, 10 cases of hydrophilia of hernia sac, 6 cases of seroma and 3 cases of wound infection after operation. During the period of 12 to 48 months of follow-up, all cases contact. There was no case died at 2 year post-operation and no recurrence in operative side, and 5 cases of recurrence in nonoperative side.

**Conclusions:** Tension free repair in the treatment of incarcerated inguinal hernia is safe and feasible. Lichtenstein hernioplasty is simple and has less risks. It's typically appropriate for patients with inguinal incarcerated hernia.

AFP3-3

### Comparative study of analgesic effect of local anesthesia with simple lidocaine and ropivacaine-plus in inguinal hernia tension-free repair in adults

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**Objective:** To investigate the analgesic effect of lidocaine plus ropivacaine in inguinal hernia tension-free repair under local anesthesia.

**Methods:** A total of 815 patients with unilateral inguinal hernia who were admitted to Beijing Chao-yang hospital from July 2013 to June 2014 were enrolled in this retrospective study. The patients were divided into 2 groups: local anesthesia (ilioinguinal-iliohypogastric-genitofemoral blocks plus local infiltration) using a combination of 1% lidocaine (10ml) and 0.75% ropivacaine (10ml) in observation group (n=412), and 1% lidocaine (20ml) were administered in control group (n=403). Postoperatively heart rate (HR), mean arterial pressure (MAP), pain intensity (VAS), analgesic demand, adverse events and hospital duration were assessed.

**Results:** There was no significant difference between the 2 groups in postoperative hemodynamic monitoring ( $p>0.05$ ). VAS score in observation group were lower than those in control group at 1h, 3h, 6h and 9h. The former had significantly less pain killer ( $p<0.05$ ).

**Conclusion:** Ropivacaine reduces postoperative pain levels after tension-free inguinal hernia repair. It can provide a good analgesic effect, without elevated perioperative risk.

AFP3-4

### Incarcerated umbilical hernia with intestinal obstruction: a case report

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The incarcerated umbilical hernia with intestinal obstruction is rare and associated with some life-threatening complications. We present a case of 85-year-old male patient who was admitted to the emergency department because of incarcerated umbilical hernia with intestinal obstruction. After admitted, this patient was diagnosed with incarcerated umbilical hernia with intestinal obstruction, leading abdominal compartment syndrome (ACS), septic shock, acidosis and multiple organ dysfunction. The patient was treated by gastrointestinal decompression, emergency surgery for an incarcerated umbilical hernia, anti-infection treatment and anti-shock therapy. The disturbance of water, electrolyte and acid base had been corrected on the second postoperative day. The dysfunction of coagulation recovered on the third postoperative day. After the abdominal compartment syndrome disappeared on the 4th day and heart-kidney function recovered on the 5th day, the postoperative mobilisation started. And then, the patient began to take food after anus exhausting. Finally, the patient discharged on 10th postoperative day when he recovered. This report indicates that the positive outcome of elderly patients with incarcerated umbilical hernia with intestinal obstruction would be benefit from positive surgery and reasonable perioperative management.

AFP3-5

### laparoscopy, it is the best surgical approach for the treatment of groin hernias for the young soldier? A prospective study about 90 patients

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The army needs a young and active population, to the accentuation of the inguinal hernia pathology in the military we have adopted the treatment of inguinal hernias laparoscopic view the postoperative advantages of this surgical approach, we realized a prospective study of 90 young military operates all for inguinal hernias through laparoscopic.

**Material and Method:** We operated 90 patients for inguinal hernias on the age a period of 02 years, the age of our patients varies entre 20 and 45 years, all of our patients are professional soldiers, 48% straight hernia, inguinal hernia 35% left, 13% inguinal bilateral hernias, 4% recidivantes hernias.

our results Was spectacular Especially on the plane early resumption of activities in post-surgery patients all Resumed Their activities after-15 days of convalescence, our exit from hospital patients out one day postoperative. the post operative complications Was Had a 3 patients scrotal edema, has had a postoperative patient Serom no recurrence During the two years post opeatoires, 3 patients had chronic post operative pain for a period of 15 days and 32 days-limiting.

**Conclusion:** Lapport of laparoscopy in the treatment of groin hernias can be an alternative to traitementdes inguinal hernias in young Militiare view the many

AFP4-1

### Hybrid technique in the treatment of late-stage mesh-related inguinal hernia infection

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**Background and purpose:** Wound and mesh infections after hernia repair are very severe complications. While the deep-seated infection involving an inserted mesh may result in groin sepsis, which usually necessitates complete removal of the mesh to produce resolution. We aim to describe the role of hybrid (laparoscopic & open) technique in the treatment of late-stage mesh-related infection after tension-free inguinal hernia repair.

**Methods:** Patients with chronic mesh-related infection were treated surgically in our department. Patient were either by open procedure, or hybrid technique. The patients were re-operated through the same groin incision. We used methelene blue to guide the complete removal of mesh.

**Results:** All late-staged infected meshes were successfully removed without severe complications. No hernia recurrence and/or chronic groin pain occurred.

**Conclusion:** Methelene bule is useful for the complete removal of mesh, hybrid technique is a preferred method in some cases in the inspection of abdominal adhesion caused by mesh, and avoid visceral injuries during operation.

AFP4-2

### Comparison of Triple Repair using Ventralight and Soft mesh with Omyra and Optilene in Laparoscopic Repair of Incisional Hernia

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**Background and Aim:** Laparoscopic repair is usually done by one mesh. In need to reduce the recurrence of the hernia, we introduce new technique using closure of the defect with monomox suture and 2 meshes to cover the defect.

**Methods:** The technique is done for 2 groups of patients. The first group has undergone Laparoscopic Repair of Incisional Hernia using Omyra, Optilene meshes and Monomox suture closing of the defect. Moreover, the second group has been repaired using ventralight, soft meshes and monomox suture repairing of the defect.

**Results:** The study is performed from January 2015 to January 2016 in the Medical City of King Saud University. The first group includes 14 patients (4 males and 10 females) and the second group has 10 patients (2 males and 8 females). The technique is done as day surgery and in follow-up no seroma and no recurrence in follow-ups.

**Conclusions:** Triple laparoscopic repair of incisional hernia for both group has the same outcome for the follow-up period. No seroma, wound infections and recurrence. Long follow-up is needed to demonstrate the best kind of meshes to be used.