

MANAGEMENT OF GREAT PROSTHESIS FOR REINFORCEMENT OF VISCERAL SAC COMPLICATIONS

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Abstract — Great prosthesis for reinforcement of visceral sac is a guaranteed operation for unilateral or bilateral inguinal hernias in old patients or recurrent cases. The greatest use of this technique is in the patients who are at specially high risk for recurrence. We successfully accomplished this technique in 70 cases in our hospital while the patients were continuously under our close inspection for 12 to 60 months. In this period we had some minor intraoperative incidents: 2 bladder perforations (3%), 21 peritoneal ruptures (30%). There was 4 bulging of groin area (6%) on the second postoperative day. All of these incidents had satisfactory outcome. There were no infection of prosthesis also no evidence of phlebitis or emboli in our patients, but there was wound infection in one case (1.5%) which had manageable outcome. Two recurrences (3%) occurred in our series. In spite of above - mentioned incidents and complications we recommend this technique on some patients with the indications suggested by Stoppa.

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Key words: Prosthesis; hernia.

INTRODUCTION

Great prosthesis for reinforcement of visceral sac (GPRVS) which have been used for 25 years by Stoppa in France is a guaranteed operation for bilateral and recurrent groin hernia which does not require any attempt at repair of hernial defect (1). This technique is performing with preperitoneal approach and use of great prosthesis policy to inforce or replace the transversalis fascia (2). With a midline subumbilical or Pfannenstiel incision, the abdominal wall is opened and the umblicovesical fascia is cut along its length (Fig. 1). Dissection begins and progresses at the Retzius and Bogros spaces cleavage to the laterals. After the sac of hernia has been treated, the parietalization of spermatic cord is done (Fig. 2), and then the prosthetic mesh that has been measured directly on the patient according to Odimba and Stoppa opinion (1), with the mean dimensions of 26 cm by 15 cm cuts into a chevron shape (1,2,3,4) to allow to run beyond the musculopectineal orifices. Placement of prosthesis is achieved by pushing it into position with rochester forceps (Fig. 3). The forceps are pushed as far as possible toward the posterior abdominal wall. These manovers are repeated at the opposite side and after placement of prosthesis, it is fixed with only one absorbable suture to the lower

margin of Richet fascia (Fig. 4).

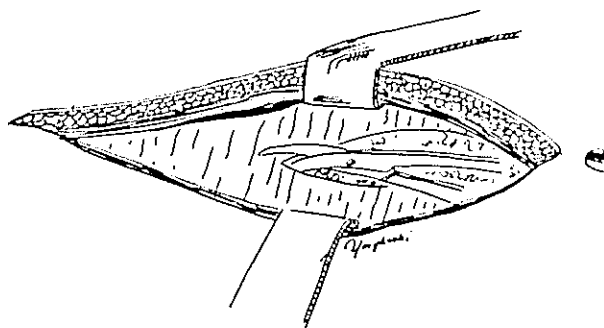


Fig. 1. Abdominal incision and cutting of umblicovesical fascia along its length

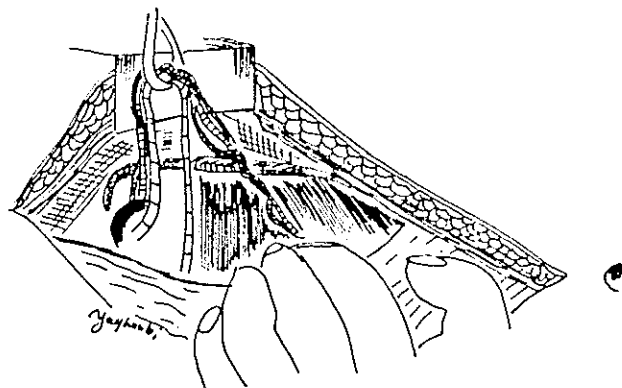


Fig. 2. Parietalization of spermatic cord

MATERIALS AND METHODS

We used the above mentioned technique in 70 cases which were male with age range from 34 to 79 years. The chief complain of patients was inguinal bulging in 56 cases and they have suffered from inguinal area pain in 24 cases. The duration of hernia was between 20 days to 17 years with 55% more than 10 years. Fifty cases of these hernias were bilateral and 20 cases were unilateral. Preoperatively, distribution of direct hernia was similar in both sides, but indirect hernia was more in right side. Thirty five cases were recurrent hernia for 1 to 4 times. Two third of recurrences were on right side and one third on the left side. We accomplished this technique through subumbilical median incision in 68 cases and pfannenstiel incision in 2 cases. Intraoperatively, we found the same incidence of direct hernia as preoperatively but indirect hernia was two times more than right side. The mersilen mesh size was 25 ± 5 cm in length and 16 ± 4 cm in width, and the mean size was 24 cm by 16 cm respectively. Antibiotics were used in all cases (Cephalotin alone or combined with gentamicin). We used frequently two vacuum drains which were removed on 2d to 6th postoperative day. The amount of serosanguinous secretion was 120 ± 100 ml from right drain and 130 ± 120 ml from left drain. Heparin has not been used.

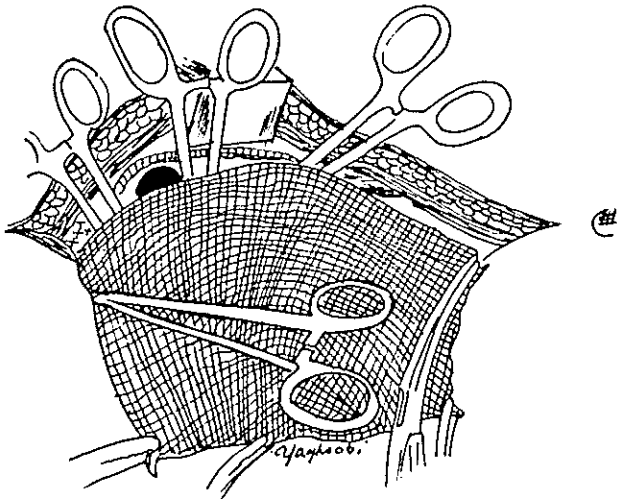


Fig. 3. Placement of prosthesis by pushing it into appropriate position with Rochester forceps

Intraoperative Incidents

1. Perforation of peritoneum: The peritoneum was opened in one to four points in 20 cases. This incident happened frequently in patients who had previous abdominal operations such as prostatectomy, appendectomy and recurrent hernia. All of these closed with absorbable sutures.

2. Perforation of bladder: The bladder perforated in two cases due to rochester forceps pressure by assistant. Both cases happened in complicated hernia which had previous prostatectomy. We sutured with one layer polyglactin and inserted urinary catheter for 3 to 5 days.

Postoperative Complications

1. Bulging of inguinal area: There were four cases of bulging of groin area on second day postoperatively due to collection of serosanguinous fluid which were treated by two successfully aspiration.

2. Recurrence: There was two recurrent cases: A 65 years old man with bilateral direct hernia with left side recurrence. The mesh size was 25×15 cm. The second case was a 43 years old with bilateral hernia, his left side recurred twice before. The mesh size was 26×20 cm.

3. Wound infection: There was 2 cases of wound infection. We had no cases of rejection of prosthesis and thrombophlebitis. We used antibiotic in all cases but we didn't use anticoagulants.

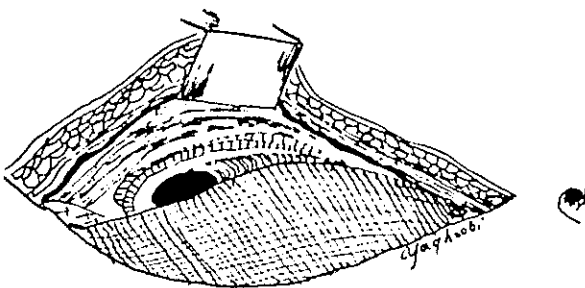


Fig. 4. Fixation of prosthesis with one absorbable suture to the lower margin of Richet fascia

DISCUSSION

The main complication of all hernia repair technique is recurrence and the main disadvantage of all nonprosthetic repairs is tension on suture line. GPRVS has lowest recurrence rate (1.1% in comparing 12.5% after Shouldice Bassini operation, 0.7% after McVay repair and 8.5% after inguinal patch) (4) and it is truly tensionless technique without any suturing of hernia defects (5). It is possible that recurrences were due to inadequate size of mesh or badly broadening of mesh. We had experienced in late cases, both recurrence have happened on our early cases and before the end of first year and there was no worsening of the results after first year. This technique is simple - rapid without need to extensive dissection and repair of hernial defects. In some direct hernia it is necessary to manage the transversalis fascial sac to eliminate seroma collection between fascia and prosthesis according to Stoppa and Wantz (6).

It is documented that sepsis is low in GPRVS (2.15%) according to Stoppa and coworker (2,3). We had one wound infection which managed by opening some stitches of skin without need to remove prosthesis.

In conclusion the GPRVS complications and intraoperative incidents are not troublesome. Management of recurrences, infection and intraoperative incidents such as bladder perforation, peritoneal rupture experienced in our cases.

In spite of above mentioned incidents and complications we recommend this technique for following situations: (1) Males over 40 years old. (2) The hernia is complicated as some type of groin hernia, bilateral hernia, and hernia associated with single or multiple lower eventrations. (3) The hernia is complicated by nature as in sliding hernia, enormous inguinoscrotal hernia, and recurrent or multirecurrent

hernias, when a recurred hernia associated with a destroyed poupart or cooper ligaments, it is the last resort. (4) The hernia is femoral prevascular. (5) The hernia has recurred after repair by an inguinal patch. (6) The conditions are such that the surgeon must aim for a guaranteed result. Obesity, advanced age, and cirrhotic disorders are such conditions. (7) The operation must be performed quickly, as in bilateral hernias or in elderly or high-risk patients. (8) Ehler - Donles syndrome and Marfan's disease with multirecurrent hernia.

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