

Comparative Study of Efficacy of Stoppas Procedure Over Bilateral Lichtensteins Hernioplasty in Bilateral Inguinal Hernias

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Abstract: Surgical repair of inguinal hernias is a common procedure done in adults. However recurrence has been reported to occur in 15% of the cases and postoperative pain and disability are frequent. The strengthening of posterior inguinal wall is one of the major objectives in inguinal hernia repair. The Stoppas repair or Giant Prosthetic Reinforcement Of the Visceral Sac(GPRVS) is done by wrapping the lower part of parietal peritoneum with prosthetic mesh over Fruchauds myopectineal orifice. The mesh contributes to a physiological healing process that creates a special anatomical strengthening in the inguinal region that prevents recurrence. The purpose is to study the efficacy of stoppas repair in bilateral inguinal hernias in the department of general surgery in CMCH and to study its advantages and disadvantages.

Keywords: Stoppas procedure, GPRVS(Giant Prosthetic Reinforcement of the Visceral Sac), Fruchauds myopectineal orifice, Lichtenstein's hernioplasty

I. Introduction

The term 'hernia' is derived from the Greek word hernios, which means "budding". A hernia is defined as an area of weakness or complete disruption of the fibromuscular tissues of the body wall through which the contents arising from the cavity contained by the body wall can pass through. Bassini revolutionized the surgical repair of the groin hernia who performed his first operation in 1884 and published his outcomes in 1889. Stoppas preperitoneal repair was done in 1975. The strengthening of the posterior wall of the inguinal canal remains one of the major objectives in the repair of groin hernias. Stoppas procedure is done by wrapping the lower part of the parietal wall with wide mesh that covers Fruchauds myopectineal orifice. This requires the dissection of the preperitoneal space, dissecting out the cord structures, identifying & reducing the sac and placing a wide mesh over the peritoneum. Our retrospective study involved 50 patients who attended the general surgery department from June 2015 to May 2016 out of which 25 patients treated with bilateral Lichtenstein's hernioplasty and other 25 patients treated with Stoppas repair and both the groups followed up for 1 year. In our study we found that mean operating time, requirement of post operative analgesia, complications of surgery and recurrence found to be lower in Stoppas repair group.

II. Aim & Objectives

- To evaluate the efficacy of Stoppas repair in bilateral inguinal hernias
- To study the advantages of Stoppas repair
- To study the recurrence with Stoppas procedure

III. Materials And Methods

This is a retrospective study involving 50 patients who attended the General Surgery department, Coimbatore Medical College Hospital. Patients selected based on inclusion and exclusion criteria.

Inclusion criteria:

1. Age > 30 years
2. Bilateral Inguinal Hernias
3. Recurrent Inguinal Hernias
4. In patients with collagen disorders

Exclusion criteria:

1. Obstructed or Strangulated Hernias
2. Primary Unilateral Hernias
3. Patients with Retroperitoneal mass or Carcinoma Prostate
4. Sepsis of abdominal wall
5. Previous midline scar from any other abdominal surgery

IV. Technique

Done under spinal anesthesia. Abdomen opened by Pfannensteil incision. Subcutaneous fat, rectus sheath opened. Rectus muscles separated in the middle. Preperitoneal space is entered by incising the fascia over the space of Retzius. The dissection is continued laterally over the space of Bogros upto the Psoas muscle. The symphysis pubis, Cooper’s ligament and iliopubic tract are identified. The spermatic cord is parietalized and displaced laterally. Direct sacs will be reduced in this dissection. Indirect sacs are mobilized from the cord structures and reduced back into the peritoneal cavity. Care taken to identify and preserve the testicular vessels. The polypropylene mesh of size 30*15 cm placed over the peritoneum and fixed inferiorly to the pubic symphysis , Cooper’s ligament and superiorly to the arcuate line. Intra operative pictures shown in Fig 1 & 2. Secure hemostasis obtained. Wound closed in layers without drain. All patients were catheterized preoperatively and the urinary catheter removed in the immediate post operative period. The parameters observed and compared are tabulated below(Tab 1)

Table 1(Tab 1)

ParameterS	Stoppas Repair	Lichtenstein’s Hernioplasty
Mean Operating Time	30 Min	1 Hour
Post Operative Analgesia Requirement	1 Day	2 Days
Post Operative Complications	None	In 5 Patients
Duration Of Stay In Hospital	3 Days	4 Days
Return To Routine Work	2 Weeks	3 Weeks
recurrence	None	2

Fig 1- Intraoperative picture



Fig 2- Intra operative picture



Fig 3- Postoperative picture after 1 week

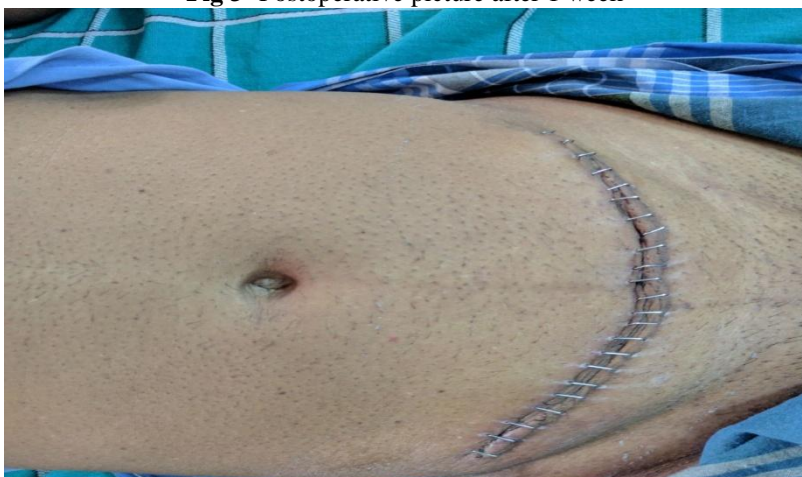


Fig 4- Postoperative picture after 6 months



V. Discussion

In our study group of 50 patients, 25 underwent Stoppas repair and 25 underwent bilateral Lichtensteins hernioplasty. The mean operative time for the stoppas group was 30 minutes which is found to be shorter than the time for bilateral Lichtensteins repair which required 1 hour. Post operatively patient required one day of analgesia in Stoppas and in bilateral Lichtensteins repair two days of analgesia required. Post operatively patient had no complaints and no complications noted in stoppas group. In lichtensteins repair group 3 patients had urinary retention and 2 patients had wound infection but none of them required mesh removal. Duration of stay in hospital was 3 days for stoppas group whereas 4 days for Lichtenstein repair group. Patients went for daily work after 2 weeks in stoppas repair group. In Lichtenstein repair group patients went for daily work after 3 weeks. No recurrence noted in stoppas group. Recurrence on one side was noted in Lichtenstein repair group in 2 patients.

VI. Conclusion

From our study we conclude that Stoppas repair for bilateral inguinal hernia is a very efficient procedure with lesser operating time, lesser requirement of analgesics, early return to work, no post operative complications and no recurrence. Stoppas repair could be done in bilateral inguinal hernias and by keeping mesh over fruchauds myopectineal orifice we could be preventing recurrence and also avoiding femoral hernia in the future. Stoppas repair can be done easily in recurrent hernias as we will be proceeding in different anatomical plane.

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