



Mesh Hernioplasty For Inguinal Hernia : to Drain or Not To Drain.

KEYWORDS

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Introduction:- Inguinal Hernias are very common surgical problem, a general surgeon has to tackle, in which hernioplasty is the mainstay of the treatment. Tension free hernioplasty is the most widely done procedure for inguinal hernia repair, which involves incorporation of synthetic prosthetic material for reinforcing posterior wall of inguinal canal. The prosthetic material, e.g., prolene mesh /vipro mesh generate efficient fibroplastic reaction, yet has well tolerated bio reactivity with outstanding result, due to least recurrence rate and minimum convalescence time. Advance in surgical techniques of hernioplasty has resulted fewer complications but could not be averted all together, e.g., wound haematoma, penoscrotal haematoma, seroma, chronic groin pain, surgical site infections etc (1).

In 1887, Bassini, the father of hernia surgery advised that the surgeon should place a tube drain, after closing the external oblique aponeurosis and to bring it out through lateral side of the wound.(2)

Aim of this study is to investigate whether drainage is better than no drainage in Mesh Hernioplasty in inguinal hernia repair and benefit of closed suction drain, if any.

Material and Methods :- All patients had undergone Lichtenstein's Mesh repair which is gold – standard technique as per American College of Surgery. (3)

A prospective study was performed and investigated 201 patients in the General Surgery Department of Tripura Medical College & Dr. B.R.A.M. Teaching Hospital, Tripura, India, from January 2010 to January 2015. In our hospital we routinely performed Lichtenstein procedure.

All the operations were done under spinal anaesthesia with skin incision 2.5 cm above and parallel to the medial two thirds of the inguinal ligament. In indirect hernia, the hernial sac was dissected out, hernial contents dealt with, neck of the sac twisted, transfixed and ligated. In direct hernia, the sac was invaginated or pushed back in the abdominal cavity.

Then reinforcement of the posterior wall of inguinal canal involves placement of a prolene mesh anterior to the posterior wall in Lichtenstein technique with generous overlapping on all sides. Mesh was secured in place with prolene suture to inguinal ligament, rectus sheath, internal oblique to avoid displacement.

Haemostasis is of utmost importance in any surgical procedure, whether it is simple or difficult or complicated. Once haemostasis was achieved, patients were assigned in two

categories. In one category, putting of a single 4.8 mm drainage tube which was placed deep to external oblique aponeurosis, rather deep to the spermatic cord – and brought out through a puncture lateral to the lateral margin of incision and connected to a close suction device. The suction bag compressed half for a medium suction power, the volume of the collection in the reservoir was measured daily. In other category no drains were placed.

Post operatively, the drain was removed when the drainage attained less than 30 ml of drainage in 24 hours time.

Result:- Of the total 201 patients, 184 were males and remaining 17 were females. Of the total patients, in 101 patients drain were used, in the remaining 100 patients drains were not used. Thus, in 92 males and 8 females no drain were placed.

Of the 101 patients in whom drain was used, only one male patient developed a postoperative scrotal seroma.

Of the 100 patients in whom drain were not used, 5 patients developed complication. Of which one developed postoperative wound haematoma and four developed seroma – and all five were male patients.

Discussion:- Prolene mesh repair in Lichtensteins technique is a tension free operation, so postoperative pain and recurrence are very negligible. Also incidence of infection of mesh is very rare.

Putting a closed drain is subjective and depends on the particular case – so far the presence of adhesions and easy/difficult dissection as well as on the table decision by the surgeon (1).

There are surgeons who routinely use drains (4) and others who do not used drains.

It is evident from literature that complications that may arise from fluid collection are seroma, haematoma, infection etc.(5)

Amongst the patients of this study, 0.99% of patients developed minor complications like wound seroma in male patients in the drain placement group. The patients in whom drain were not placed, only 1% patient developed a significant complications of wound haematoma and 4% developed minor wound complication e.g., seroma. Incidentally, all patients in whom complications developed were males, probably because male require most extensive dissection than females. Result of this study also shows com-

plications are marginally more (5%) in whom drains were not placed , in contrast to 1% in the group where drain were placed.

Conclusion:- The procedure of putting of drain in hernia repair do not add much to the cost, time and skill, yet gives better results in terms of complications that arises from fluid collection because drain allows better drainage of collections.

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