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Research Paper

Transfascial Fixation of Mesh in TAPP Repair of Inguinal Hernia: Is It Cost Effective

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ABASTRACT:- Laparoscopic inguinal hernia repair has proved its superiority over conventional open hernia repair in regards of cosmesis, faster recovery, and early return to work beyond doubt. Still the procedure has been challenged by the follower of open technique in comparison to cost effectiveness of the procedure because classically the procedure needs use of a fixation device along with larger size of mesh which is costlier and needs longer learning curve for the surgeon. The aims and objective of this prospective study is to eliminate the use of the costly fixation device like tacker to cut down the cost of the procedure comparable to open hernia repair. Transfascial fixation of the mesh in TAPP repair is possible and eliminates the use of costly fixation device. Time required is less for the surgeon who is not much familiar with hand suturing. Transfascial fixation is ergonomically easier also for newer surgeons. Use of PDS suture eliminates the risk of subcutaneous nodularity which sometimes occurs when non-absorbable polypropylene suture is used. The procedure is highly effective in reducing the cost of lap hernia procedure, making it affordable to the common people.

Keywords:- LAP HERNIA REPAIR,TAPP,TRANSFASCIAL FIXATION OF MESH

I. INTRODUCTION

Laparoscopic hernia repair has gained wide popularity in recent years. The procedure hasproved its superiority over its open counterpart in various aspects postoperatively. The most important obstacles in making the procedure popular for common people are material cost and acquiring skill for the procedure by the surgeon. In view of the above problems we are doing transfascial fixation of the mesh by PDS at different points which fixes the mesh to the anterior abdominal wall. Reperitonisation overthe mesh is done by again transfascial PDS suture. The procedure obviates the cost of fixation devise and does not require high suturing skill for the surgeon.

II. MATERIALS AND METHODS

25 cases of inguinal hernia were taken in the study out of which 18 were indirect inguinal hernia and 7 were direct inguinal hernia. All the cases were male and at the age group of 18 to 65 years.Complications like irreducibility, strangulation, and recurrence were not taken in the study. All cases were done by TAPP. Classical procedureof reflection of peritoneal flap and dissection of anatomical landmarks like pubic bone, coopers ligament, cave of retzius. Then dissection of the sac and ligation of the sac was done. Then peritoneum is reflected below up to a point where the vas turns medially. Now 15 x 15 cm mesh is taken and cut 3 cm so that it becomes 12cm vertically and 15 cm horizontally. Now the mesh is placed in such a way that the centre of the mesh lies over the defect. We fix the mesh in the following ways. To the cooper's ligament,mesh is fixed by two interrupted prolene suture. To fix the mesh to the anterior abdominal wall and prevent displacement, we fix laterally at two points above ileopubic tract similar way medially and superiorly.We avoid tacker for fixation. Then we mark the points where we decide to fix over the skin of the abdomen. A small stab incision is made over the skin up to suprerficial fascia. Suture passer is passed through the stab wound piercing all the layers of abdomen and mesh up to the abdominal cavity. One end of 2-0 pds suture is brought out with the help of suture passer .Now suture passer is again passed through the same stab wound but emerged at different site near the previous site of puncture and other end of the same suture is brought out side with the help of suture passer. Both the ends are tied together and the knot lies hidden under the skin which properly fixes the mesh to the

abdominal wall .A port closure needle can be used as suture passer but it is wise to prepare a suture passer with the help of 18 g cannula stelate and prolene making a loop. The procedure is similar to ventral hernia mesh fixation. Reperitonisation is done in the same way with multiple transfascial suture .

III. RESULTS

All the patients were done under general anaesthesia and liquid diet started after six hours. Next post-operative day dressing was removed and puncture sites were observed. Puncture sites were almost invisible and without any stitch. There was no haematoma, swelling, echymosis. Patients complained of slight tightness of the transfascial stitched site which usually disappear with mobilisation of the patient from bed.

IV. DISCUSSION

Laparoscopic hernia surgery benefits patients because it produces less pain than open hernia , enables patients to return to normal activity and work more quickly[(1)] .In spite of several proven benefits of lap hernia repair few factors prevent the lap hernia repair from becoming more popular than lap cholecystectomy .The Most common factor is the material costs. In lap hernia repair fixation devise is ideally required which is expensive. Self-griping mesh and fibrin glue mesh fixation are other alternative method developing to classical method of mesh fixation [(2)]. Secondly surgeon's learning curve is long. Laparoscopic inguinal hernia repair remains a challenge to teach and learn[(3)]. TAPP procedure is more anatomical friendly for learner but it requires good suturing skill in ergonomically difficult situation while suturing the peritoneum. On the other hand in open repair no such material cost is required. Hence poorer sections of the people find it hard to accept the procedure in spite of the overall advantages and even people without health insurance coverage are reluctant to accept the procedure most of the time because of the cost. Transfascial fixation technique like used in lap ventral hernia repair if used in TAPP repair eliminates the expensive fixation device and does not require the surgeon to possess high suturing skill.

V. CONCLUSION

Transfascial fixation of mesh in TAPP repair is an easy and less time consuming technique which can be done by any laparoscopic surgeon who has not mastered the art of laparoscopic suturing. The procedure reduces the cost of lap hernia surgery drastically avoiding use of tacker making the procedure cost effective like open hernia surgery and offering the all benefits of laparoscopic surgery to the patients .

REFERENCES

[1]. Laparoscopic versus open inguinal hernia repair :randomised prospective trial(PMID:7910272):Stroker DL,Singh R, Wellwood JM, LANCET(1994,343(8908):1243-1245

[2]. Comparision of self gripping mesh fixation with fibrin-glue in laparoscopic hernia repair(TAPP):Combat M,ZonacaP,Harbty B: B LekLisly. 2012.113(2)103-7:PMID 22394041(Pubmed indexed for MEDLINE)

[3]. A noval low cost simulator for laparoscopic inguinal hernia repair : Kurashima, Feldman L, Alsabah S, Kaneva P, Fried G, Vassiliou M : Surg Innov.2011 jun: 18(2):171-5;Epub 2011 Feb.8

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