Overlapping (Double Breasting) Of External Oblique Aponeurosis In Inguinal Hernia Repair

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The results of overlapping (double breasting) the external oblique aponeurosis in inguinal hernia repair and to see the recurrence and other complications after one year follow up are presented. Patients of age above 19 years with inguinal hernia were admitted from March 1996 to October 1996 in Surgical unit –I of Lahore General Hospital Lahore. One hundred patients of age above 19 years with inguinal hernia were included. Overlapping (double breasting) of external oblique aponeurosis in inguinal hernia repair had no recurrence after one year follow up. Out of one hundred patients with inguinal hernia above 19 years of age 39 were from 19 to 30 years of age, 18 from 30-50 years of age and 43 were above 50 years. All cases were of male sex. 68 of patients had indirect inguinal hernia, 30 had direct while 2 had pantaloon hernia. 15 patients had constipation, 12 had chronic cough and 3 had complain of chronic straining at micturation, 61 of patients were smoker and 39 were non-smoker. 52 patients were operated under general anaesthesia.27 under spinal, 16 under local while5 were operated under epidural anaesthesia. 3 of patients developed postoperative haematoma, 5 had scrotal edema, 2 patients had postoperative pain at inguinoscrotal region. After one years of follow up no patient came with recurrence. This technique of overlapping (double breasting) of external oblique aponeurosis is recommended in all types of inguinal hernial repair.
Keywords: Overlapping, external oblique aponeurosis, inguinal hernia.

Inguinal hernia is the commonest problem encountered in surgical practice throughout the world. Frequency of inguinal hernia is 5% of the total male adult population and out of every 1000 external hernias in general population about 825 are inguinal hernias [1]. In nearly all inguinal hernias the external oblique aponeurosis is weak and is bulging over the greater part of the canal [2], the weakness being proportional to the size of protrusion. Strengthening of the external oblique aponeurosis is one of the most important part of any operation for inguinal hernia. Narrowing of deep inguinal ring is not enough , the chances of recurrence are more if deep inguinal ring lacks support from strong anterior wall of the inguinal canal. This support can readily be provided by overlapping the external oblique aponeurosis in front of spermatic cord. Since aponeurosis is usually lax, the overlapping can be done easily and without tension.

Variations of different techniques of inguinal hernial repair are many. Some famous techniques are Bassini's, Halsted's, Marcy's, Shouldice's etc. Our technique is a newer one and is being studied in 100 cases of inguinal hernial repair.

Material and Methods

In the present study one hundred patients of age above 19 years admitted through OPD and emergency to surgical unit I of Lahore general hospital with inguinal harnia are included.

These patient were processed with detailed history thorough physical examination and investigations like CBC, urinalysis, blood sugar, and x-ray chest, ECG in older patients.

Patients were operated on both routine list and in emergency, under general, spinal, epidural and local anaesthesia.

Operative procedure

After dealing with the sac and darning repair of posterior wall with prolene no 1. The upper leaf of external oblique aponeurosis is mobilized and drawn down in front of the cord to be stitched to the deep surface of the inguinal ligament with chromic catgut No1[2]. The lower leaf of external oblique aponeurosis is stitched against the upper leaf thus overlapping it so that a strong anterior wall of the canal is constructed [2].

Results

Present study comprises of one hundred consecutive cases of inguinal hernia, which were operated between March 1996 to October 1996 in Surgical unit 1 of Lahore General Hospital. Operative technique in all cases was same. Patient's age was from 19 years to 75 years, 39 cases were from 19 to 30 years, 18 cases from 30 to 50 years of age and 43 cases were above 50 years. All cases were of male sex, no female came with inguinal hernia in this period of study. Regarding the type of hernia, 68% patients had indirect hernias, 30% had direct while 2% had pantaloon type of hernia(both direct and indirect). Right sided inguinal hernia was present in 59%, left sided in 33% and 8% had bilateral inguinal herniae. All cases were primary inguinal hernias, none of these was

recurrent. Reducible inguinal hernia was found in 86%, irreducible inguinal hernia without obstruction in 11% and with obstruction in 3% of patients. There was no case with strangulated hernia. 15% of patients had constipation, 12% had chronic cough and 3% of patients had complaint of chronic straining at micturation. No patient had any systemic disease e.g. cirrhosis, uraemia, and pulmonary tuberculosis.58% of patients belonged to rural area and 42% were from urban areas. 61% of the patients were smokers and 39% were non-smokers.52% were operated under general anaesthesia, 27% under spinal anaesthesia, 16% under local anaesthesia while 5% of the patient of the present series were operated under epidural anaesthesia. These patients remained in wards from 1-5 days. Most of the patients were discharged on the next day of operation.

Out of one hundred operated cases 3% developed postoperative haematoma, 5% developed scrotal oedema relieved by scrotal support. Postoperative infection was encountered in 2% of cases. 20% of patients had postoperative pain at inguino scrotal region, which was relieved by analgesics.

All cases were followed up for at least one year initially at weekly intervals for one month, fortnightly for two months and then at monthly intervals. No one came with complaint of recurrence upto one year.

Discussion

Inguinal hernia is the commonest surgical problem, which occurs more frequently, in male population. In a study carried out at civil hospital Karachi it was noted that it contributed18% of routine admissions in the ward[3]. Major Naseem 1992 from CMH Attock has reported this figure to be 10%[4].

Due to certain racial and geographical factors, the incidence of inguinal hernias in female sex of this part of the world is very low. There was no female patient in this study whereas in a study conducted by Meomon et al in Hyderahad out of total 334 patients presenting with inguinal hernia, 5 patients (1.5%) were females [5].

Although no age is immune, inguinal hernias are more common at extreme age group in present series. Young patients mostly had indirect hernias, while older patients had direct. Hernia is more on right side in first decade but after second decade left is equally common. It is a bilateral affair in 30% patients.

Inguinal hernia surgery is very old. Modern Methods of repair started about a century ago. Bassini in 1887 offered his legendary contribution to the annals of surgical technique for this common disease. Halsted, Marcy and other surgical pundits of that era also broadened the base of anatomical and surgical knowledge with their contribution to matters of surgical technique. laparoscopic inguinal hernia repair may cause a revolution if it proves to be the best treatment for inguinal hernia .In a study carried out in Bangladesh on 19 patients by Humayun Kabir Chowdhry laproscopic hernioplasty was done without using hernia stapler to reduce the cost and intracorporeal suturing was found to be good regarding complications, cost and hospital stay [6].

In our study, there was low infection rate 2%, haematoma formation 3% and scrotal edema only 5%. No recurrence was seen with in one year of follow up.Only 3 patients had haematoma. In a randomized trial of modified Bassini's and Shouldice's technique in 265 hernia repair, haematoma formation with Bassini's repair was 19.2% while it was 16.8% with Shouldice repair [7].

Evaluating the results of herniorraphy by Bissinis Shouldice and Darning technique versus hernioplasty with synthetic mesh shows that in hernioplasty group there was no heamatoma formation, while in herniorraphy group the haematoma formation was 4% [8]. Our study had only 2% wound infection, while wound infection in inguinal herniorraphy is reported to be 1% for primary hearnia repair[9]. There was upto 6% wound infection in Malik study [8].

Recurrence rate after inguinal hernia repair in our country is also within acceptable limits. In a study from Jamshoro, Hyderabad evaluating 334 patients of inguinal hernia shows a recurrence rate of 2.39% at two years follow up. All repairs were done with Bassinis technique and complicated hernias were included as well [5]. In an other study from Pakistan Institute of Medical Sciences, Islamabad evaluating 100 patients of inguinal hernia repaired by mesh implants, Shouldice technique, Bassini procedure and Darn repair shows "no recurrence". The follow up was 6 months and two years [8].

Ours is a new technique of repair. It is easy low costing reliable and with less complications. Further studies are needed to establish its place in the management of inguinal hernia.

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