ORIGINAL ARTICLE

Prognosis of Surgical Treatment of Groin Hernias at Allama Iqbal Memorial Teaching Hospital, Sialkot

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ABSTRACT

Aim:. To analyse the quatum of hernia surgery and its associated morbidity in surgical department of Allama Iqbal Memorial Teaching Hospital, Sialkot.
Study Design: Prospective study.
Place & duration of study: Department of General Surgery, Khawaja Muhammad Safdar Medical College, Sialkot from January 2015 to January 2018.
Methods: All patients serially presented in the surgery Department of Allama Iqbal Memorial hospital fulfilling the inclusion criteria are registered. The patients were divided in two groups: Group I – Prolene Darn repair and Group II – Mesh repair. Minimum of three months of follow up is must for inclusion in the study. Data was entered and analysis done by SPSS v 22.
Results: Total number of patients in our study were 2135(100%), with the age of 9-64 years ,having mean of 47+8 years, out of which 2116 were males and 19 were females. 1454 of total patients had right sided hernia and remaining 564 had left sided hernia,110 patients had recurrence and 42 patients had hernia on both sides(which were operated separately),femoral hernia was in only 7 patients.2081 patients were operated through open surgical approach and remaining 54 were operated laproscopically.437 patients had Prolene Darn Repair and 1698 patients were treated through Mesh Repair.
Conclusion: Surgery for repair of groin hernias occupies main bulk of elective operation lists. The surgery not only has good results but we have comparably low complication rates.
Key words: Groin hernias, Mesh, Prolene Darn Repair

INTRODUCTION

A hernia is an abnormal protrusion of part of the body out of its normal anatomical area of confinement Hernia may be found in many positions of the body Groin hernias are the most common type. Risk factors associated with development of hernias are smoking, obesity, collagen vascular disease, COPD, pregnancy and peritoneal diseases. Inguinal hernia is caused by a weakness in the abdominal wall, near the inguinal canal. Contents of the inguinal hernia are covered by peritoneum, fat and skin. These contents pass through weak area of abdominal wall[1].

Inguinal hernia is the most common type of groin hernia. Inguinal hernia has been disease of humans from the very first day of existence of human being.

Hernias may be congenital (often in males) or it may be acquired (often in females).Most of the congenital hernias are associated with cryptochodism and in some cases it is also associated with concurrent umbilical hernia. Acquired hernias are because of the increased diameter of inguinal canal[2].

There are two types of inguinal hernias (direct and indirect) .these two types are based on their sacs related o other structures. They can contain fat, bowel and other contents of the abdomen. They can appear as swelling in the groin or in the scrotum. There are more chances of strangulation in scrotal hernias.

Direct inguinal hernia is medial to inferior epigestric vessels and occur both in males and females but it is ten times more common in males. It protrudes through Hesselbach's triangle that is weakened area in the transversalis fascia. Boundaries of the Hesselbach's triangle are the rectus muscle, inferior epigestric vessel and inguinal ligament. Direct hernias exit through superficial ring but they don't extend to scrotum[3,4]. When patient have both direct and indirect hernia on the same side then this is called as Pantalon hernia.

Indirect hernias mostly occur because deep inguinal ring don't close during embryonic development after the testicle has passed through it. When testicle passes through the inguinal canal it is covered by the layer of peritoneum that is called as processus vaginalis. This processus vaginalis gets obliterated normally. But if processus vaginalis is incompletely obliterated then it results in indirect inguinal hernia[5].

Femoral hernia is the second common type of inguinal hernia. Contents of the femoral hernia may contain fat, bowel and any other intra abdominal organs. Between the femoral vessels and the pelvic bone there is an area of weakness through which contents of femoral hernia pass. This weakness may be congenital or it may be acquired as in the case of some incision, it is called incisional hernia[6].

Pathophysiology of herniation has been associated with high pressure from constipation, prostatic symptoms, excessive coughing and obesity. But now it has been suggested that high pressure is not a major risk factor for herniation. In now a days it is thought that it is a collagen disease and is due to abnormal production of collagen.it is also thought to be related with ageing. As you get older the

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muscles of the abdomen become weaker. In pregnancy laxity of pelvic ligaments increase due to hormonal imbalance that causes herniation. Because of the degenerative weakness of muscles and fibrous tissues there is increased risk of hernia formation in elderly[7,8].

In men route of indirect hernias is same as that of descending testis that migrate from abdomen to scrotum during developmental period. There are 25% more chances of inguinal hernias in men because due to the transmission of testicles the size of inguinal canal is larger than that of females. There are several factors that prevent formation of hernias, such as shutter mechanism and strength of posterior wall but the importance of these factors is still debatable[9].

Groin hernias in males that have no symptoms don't need any surgical intervention but in case of females, surgical intervention is needed for femoral hernia due to its higher rate of complications. Immediate surgery is required if hernia get strangulated. Surgical options include Lkittl's reapir, Prolene Dran repair, Bassini's repair, Lichenstein's Mesh repair[10].

No research regarding groin hernias has been carried in our hospital previously. In the present study, we collected the data of our patients undergoing surgery and analyzed the incidence of comorbid pathologies in patients being treated done at Allama Iqbal memorial teaching hospital affiliated with Khawaja Muhammad Safdar Medical College, Sialkot.

PATIENTS AND METHODS

All patients serially presented in the surgery Department of Allama Iqbal Memorial hospital fulfilling the inclusion criteria are registered. The patients were divided in two groups: Group I – Prolene Darn repair and Group II – Mesh repair. Minimum of three months of follow up is must for inclusion in the study. Data was entered and analysis done by SPSS v 22.

RESULTS

The basic demographic data of our patients is shown in Table I

Table I: Demographic details

Total no of patients in Study	2135	100%
Age	9 - 64 years	Mean age 47±8 years
Male: female	2116: 19	111: 1
Right side involved	1454	68.10%
left side involved	564	26.41%
Recurrent hernias	110	5.15%
Both sides involved (operated separately)	43	2.01%
Femoral hernias	7	0.32%
Open approach	2081	97.47%
Laparoscopic approach	54	2.52%
Group I- Prolene Darn Repair	437	20.46%
Group II- Mesh Repair	1698	79.53%

Table II complications encountered

	Group I 437 (100%)	**Group II 1698(100%)**
Wound infection	11(2.51%)	22(1.29%)
Seroma formation	23(5.26%)	37(2.17%)
Neuralgic pain	9(2.05%)	19(1.11%)
Testicular atrophy	8(1.83%)	33(1.94%)
Recurrence	32(7.32%)	18(1.06%)
mortality	-	-

DISCUSSION

In our study, wound infection rate was 2.51% in Group I and 1.29% in Group II, while in study by Zandejas et al[11], it was 3%. We report incidence of seroma formation to be 5.26% in Group I and 2.17% in Group II, while the study of Nilsson et al[12] reported a rate of 3.29%. In studies by Stranne et al[13], Neuralgic pain occurred in 2.05% patients, while this complication was in 1.11% patients I Group I and 1.72% in Group II according to our data.

Testicular atrophy was in 1.83% patients in Group I and 1.94% in Group II, while the study of Ku JH et al[14] repoted a rate of 1.01%. Group I patients had a recurrence rate of 7.32% and Group II had it in 1.06%,while Sun M et al[15] reported recurrence in 4.35% patients. There was no mortality in Group I as well as Group II, while it was 1% in the study of Andresen et al[16].

CONCLUSION

Surgery for repair of groin hernias occupies main bulk of elective operation lists. The surgery not only has good results but we have comparably low complication rates.

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