

GROIN HERNIA-REVISITED

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ABSTRACT

BACKGROUND

Uncommon in other animals, abdominal wall hernias are common surgical problems. They are leading cause of work loss, disability & sometimes lethal too. Investigations are required for fitness for surgery and to rule out the causes of hernia and other diseases

Surgical repair is the choice of treatment for any type of any groin hernia. There is no medical management.

Aims & objectives

- 1) To reduce the incidence of recurrence of groin hernia repairs.
- 2) Immediate surgical intervention of absolute indications for groin hernia.
- 3) Early intervention for relative indicated groin hernias repair including idiopathic cause.

MATERIALS AND METHODS

Cases of groin hernias admitted in Karwar institution of medical sciences. Karwar, a tertiary care government hospital, from January 2016 to December. 2016 have been taken for this study, a total of 101 cases consider for study.

RESULTS

39.60% of the groin hernias was noted in the age group of 51 to 70 years. Male preponderance is noticed, that amounts to 77.22% affection of hernia being more on right side. 58 out of 101 cases in our study is 57.42% whereas indirect inguinal hernia is common occurrence in 52 patients out of 101. That leads to 51.48%. Acquired hernias are most common that is 97 cases out of 101. Incidence being 96.03%.

CONCLUSION

In our study 101 cases of hernias were taken for the study named as Groin hernias admitted in KAIMS Karwar all the 101 cases have been admitted in our hospital and operated, there is no question of conservative management, for all the case of acquired hernias mesh-plasty has been done, only 4 cases of congenital hernias have been operated and only herniotomy done. Male preponderance of affection of hernias is noted in the study and that is 77.22% & right side indirect inguinal hernia is most common & acquired hernias are most common in our study. All the cases are operated most of them are from rural areas with low social economy status. Some of the complicated hernias have come to us due to negligence and illiteracy.

KEYWORDS

Groin Hernia Surgical Repair, Congenital Hernia Herniotomy, Acquired Hernia Hernioplasty (Meshplasty).

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BACKGROUND

Groin hernias include, inguinal hernia both indirect and direct hernias and also femoral hernias. Groin is an area where abdomen ends, and thigh starts in other words it is junction of abdomen and thigh.^{1,2}

In view of the existence of Inguinal hernia in different kind of animals and in particularly primates, one can assume

that already prehistoric human beings were affected with this disease

Manuscripts are available in Mesopotamian and Egyptian culture. The famous Papyrus Ebers dating around 1550 B.C. refers patient where suffering from inguinal hernia, quoting its appearance on coughing.^{1,2,3,4,5,6}

The word hernia means in Latin word it is rapture of portion of a structure, this word in Greek means the bud. Surgical repairs of inguinal hernia are the most common surgical procedures performed even today in general surgery department. They tend to occur in natural areas of weakness, where abdominal muscle is not strong and more vulnerable to raised abdominal pressure. The first evidence of repair of hernia dates back to first century.^{3,4}

Bassini revolutionised to surgical repairs of groin hernia in 1884. Darn repairs were first introduced in early 20th century, and reduce wound tension by using analogs tissue or synthetic suture to bridge the gap between fascial tissues.

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Francis Usher in 1958 used polypropylene as first synthetic prosthesis. The tension free concept got its brake through with Irving Liechtenstein, who used polypropylene meshes for posterior wall of inguinal canal.^{3,7,8}

Surgical repairs is the gold standard management in groin hernias, both congenital and acquired hernias.^{8,9}

Open herniotomy is the choice of repair in congenital hernia, associated with hydrocele, as both external inguinal ring and deep inguinal rings are closed to each other. There is no scope for tissue repairs and or meshplasty.⁹

All the acquired hernias are managed with meshplasty only. Both open and laparoscopic hernia repairs are carried out, even for Bubonocoele also.

Lichtenstein tension free meshplasty is mostly performed in open inguinal hernia, transperitoneal and Trans abdominal laparoscopic procedure is also being done.

MATERIALS AND METHODS

All the 101 cases of groin hernias that is congenital hernias with hydrocele in children, direct inguinal hernias, indirect inguinal hernia (Bubonocoele, incomplete complete hernias) and complicated hernias like irreducible, obstructed, incarcerated strangulated hernias, and recurrent hernias admitted in KAIMS hospital Karwar, a tertiary care government hospital in district Uttar Kannada, Karnataka, Cases admitted between January 2016 to December 2016 from the materials of the study.

All the 101 cases admitted in KAIMS hospital Karwar. Have been counselled and obtained permission from the patient, investigated and operated and followed up, is the methodology of the study.

Inclusion Criteria

All the case of Groin hernias including congenital hernias with hydrocele, direct and indirect inguinal hernias (Bubonocoele incomplete and complete hernias) recurrent groin hernias complicated hernias and femoral hernias.

Exclusion Criteria

- 1) Unilateral and Bilateral undescended testis in male patients.
- 2) All the swellings in the groin except groin hernias clinically.

RESULTS

Age In year	No. of cases	Percentage
0-10	05	4.59%
10-30	15	14.85%
31-50	30	29.70%
51-70	40	39.60%
71 & above	11	10.89%

Table 1. Age Wise Incidence

Age wise incidence in our study 51-71 yrs. group showed higher incidence of affection of hernias, percentage being 39.60%, probably this group of age people are vulnerable for strenuous work, next being 31-50 yrs. age group amounting to 29.70%, this group crosses 40yrs. of

age could be having comorbidity like hypertension, diabetes, chronic bronchitis etc.

Sex	No. of Cases	Percentage
Male	78	77.22%
Female	23	22.77%

Table 2. Sex Wise Incidence

Sex incidence out of 101 cases taken for study 78 case are males percentage being 77.22% male are exposed for labours work and most of our patients are from rural areas and are strenuous working labour class.

Side	No. of Cases	Percentage
Right side	58	57.42%
Left side	38	37.62%
Both sides	5	4.95%

Table 3. Side Wise Incidence

In side incidence 58 cases out of 101 cases of hernias taken for the study belong to right side inguinal hernias and percentage being 57.42% most of the cases are males due to their physical exertion of right side, both sides are mostly present in old age person probably due to benign enlargement of prostate, stricture urethra, constipation which lead raised intra-abdominal pressure.

Type wise of Hernia	No. of Cases	%	Sabiston's Observations
Indirect inguinal hernia	52	51.48%	50%
Direct inguinal hernia	38	37.62%	25%
Femoral hernia	7	6.93%	3%
Congenital hernia	4	3.96%	--

Table 4. Type Wise Incidence

Type wise incidence Out of 101 cases of hernia taken for study 52 cases are inguinal hernia right side that amongst to 51.48%. According Sabiston's text book of surgery, his observation is also 50%. This is probably due to delay in closer of process vaginalis. Direct hernia are common in older person due to hypertension, diabetes mellitus, and chronic cough etc. Femoral hernia are common in females, due to multiparity and wide femoral canal due to usually wide pelvis in females.⁴

Aetiology	No. of Cases	Percentage
Congenital Hernia	4	3.96%
Acquired groin hernia	97	96.03%

Table 5. Aetiological Incidence

Aetiological incidence, there are 4 cases of congenital hernias have been operated out of 101 cases taken for the study. Acquired hernias being 97 cases which the major bulk of cases that leads to 96.3% acquired hernias have various aetiological reasons like co-morbidity diseases and musculoskeletal weakness due to strains work. Other cause being nutritional lacing due to poor socio-economic status of the patients coming to us.

DISCUSSION

Groin hernia is the common diseases we come across in the surgical practice. Surgical repair of the groin hernia is common procedure in the surgical operation theatre in day today procedure in the department of General surgery.^{1,2,3,4,5,6}

101 cases have been taken up for the study, highest incidence of groin hernia found in the age group of 51 to 70 years that amounts to 39.60% this group of people have been exposed for high strenuous work and most of our patients come from labour class, who are used to very hard work. Again, this class people may have co-morbidity diseases.

Again, male sex is affected more in groin hernia. Percentage being 77.22% since they hold good number as they are highly exposed to laborious work and most of them are right sided.

1 case of right sided occurrence of groin hernia was found. This is because of right side predominance of work.

51.48% percent of 101 cases are of common hernias indirect inguinal hernia this could be due to delay in closer of process vaginalis and it is remnant of embryological prothesis.⁹

According to study of aetiological incidence acquired group of hernias has 96.03%, due to various causes of diseases congenital groin hernias being 39.96% due to failure of closure of processus vaginalis more so in children and in some it happen in adult.

Aetiological Analysis of Groin Hernia

101 cases of groin hernias have be taken for the study, 97 cases are of acquired hernia due to wide variety of causes are known for groin hernias. In our study, male adults and middle aged group, which had right sided inguinal hernias most of them had history of long standing work procedures most of them are male patients there is history of smoking since so many years so that they had chronic bronchitis which in turn raises the intra-abdominal pressure that leads to groin hernia.¹⁰

We had two cases of post appendicectomy, right sided direct hernia and in one case he had severe trauma while working in building construction, he came with herniation of small intestine with compromised ischemia that loop found in scrotal sac.

A number of male patients had come with mild to moderate enlargement of prostate who had direct inguinal hernia. 3 obese women had direct inguinal hernia. Few of the cases had constipation history due to non-vegetarian food habit.

Good number of patients of groin hernia have both hypertension and diabetes or one of them as co-morbidity.^{2,3,4,10}

No intra-abdominal malignancy was noticed in our cases even though it is one of the aetiological factors for groin hernias.

Operative Analysis of Groin Hernias and Postoperative Management

- All the 101 cases of groin hernias taken for the study have been operated in our KIAMS Hospital, Karwar.
- Both open and laparoscopic procedures have been done to repair groin hernias. Lichtenstein tension free hernioplasty (meshplasty) done as open hernia repair procedure.^{7,8,11,12}
- In laparoscopic procedure both TEP and TAP with meshplasty done.
- We had 4 cases of femoral hernias; all of them have been operated. In two cases, low approach (Lockwood) procedure done, for another two cases inguinal approach (Lichtenstein) procedure with insertion of mesh done.⁴
- No significant post-operative complications noticed in our cases except few stitch infections; manged them with appropriate antibiotics.^{3,13}
- Maximum cases we operated on elective basis, only few cases were operated on emergency basis. There are no recurrences in our operated cases during follow up.

CONCLUSION

101 cases of groin hernias were taken for the study; most of them are acquired hernias; male is the predominant sex for the affection of hernias; 31 to 70 years age group have the maximum incidence of groin hernias; indirect inguinal hernia on right side is more common.

As there is distortion of anatomy in abdominal wall due to groin hernias, surgical repair is the gold standard in management of groin hernias. There is no medical or conservative treatment for groin hernias.

As we had cases of poor socio-economic group and from rural area; they are mostly illiterate; we counselled them for early operations for groin hernias and to prevent hernia complications.

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