

Original article:

Analysis of Cases of Inguinal Hernia Patients Visited to Department of Surgery: A Clinical Study

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Abstract

Introduction: Inguinal hernia is the most common type of hernia and it mainly affects men. This study was conducted to assess the cases of inguinal hernia in study population.

Materials & Methods: This retrospective study included 122 patients of both gender. Complaints of groin swelling with or without pain, family history of inguinal hernia, lifestyle habits, and nature of job, chronic constipation and cough were recorded. An inguinal hernia was diagnosed based on the criteria that clinically detectable swelling in the groin or a clearly palpable defect of the abdominal wall in the groin.

Results: Out of 122 patients, males were 82 and females were 40. The difference was significant. Age group, 10-20 years had 14 males and 4 females, 20-30 years had 12 males and 6 females, 30-40 years had 15 males and 10 females, 40-50 years had 24 males and 12 females and >50 years had years had 20 males and 8 females. The difference was significant ($P < 0.05$). Right side was involved in 72 patients, left side in 14 patients and bilateral involvement was seen in 36 cases. The difference was significant.

Conclusion: It is more common in males as compared to females. Right side is commonly involved.

Key words: Cough, Inguinal Hernia, Smoking.

INTRODUCTION

The inguinal hernia is the most common type of hernia and it mainly affects men. An inguinal hernia is a protrusion of abdominal cavity contents through the inguinal canal. It is said to be often associated with ageing and repeated strain on the abdomen. Inguinal hernias account for 70% of all abdominal wall hernias with a lifetime risk of 25% in men and 4% in women.¹ A hernia occurs when an organ pushes through an opening in the muscle or tissue that holds it in place. It is protrusions of body parts through defects in the anatomic structures that normally contains it and are most common in the abdomen. Abdominal wall hernias are frequently encountered in surgical practice accounting for 17% - 19% of all surgical procedures.²

Several hypotheses regarding the etiology of inguinal hernia have been proposed; however, large-scale data on the occurrence of inguinal hernia may provide further understanding to the patho inguinal hernia development. In females, obesity, pregnancy, and operative procedures have been shown to be risk factors that commonly contribute to the formation of inguinal hernia.³

The complications of inguinal hernia include incarceration, bowel obstruction, and bowel strangulation with the greatest risk being found among older persons. Inguinal hernia repair is a commonly performed general surgery

procedure in both adults and children with inguinal hernias constituting more than 90% of all groin hernia repairs. It may be congenital or acquired. The proposed and well known risk and causes for inguinal hernias were increased abdominal pressure, preexisting weakness of abdominal muscles, straining during defecation, heavy lifting of weights, obesity, pregnancy etc.⁴ This study was conducted to assess the cases of inguinal hernia.

MATERIALS & METHODS

The present study was conducted in the department of general surgery, Kamineni Institute of Medical Sciences, Andhra Pradesh, India. It comprised of 122 cases of inguinal hernia of both genders. Patients were informed regarding the study and written consent was obtained. Ethical clearance was obtained from institutional ethical committee. General information such as name, age, genders, complaints of groin swelling with or without pain, family history of inguinal hernia, lifestyle habits, and nature of job, chronic constipation and cough were recorded. The clinically detectable swelling in the groin or a clearly palpable defect of the abdominal wall in the groin confirmed the diagnosis of inguinal hernia. The most important clinical signs used to detect hernia were reducibility and cough impulse. History of chronic constipation, obstructive pulmonary and urinary tract disease, etc was recorded. Results thus obtained were subjected to statistical analysis. Chi-square test was done and P value less than 0.05 was considered statistical significant.

RESULTS

Table I shows that out of 122 patients, males were 82 and females were 40. The difference was significant (P= 0.01). Graph I shows that age group, 10-20 years had 14 males and 4 females, 20-30 years had 12 males and 6 females, 30-40 years had 15 males and 10 females, 40-50 years had 24 males and 12 females and >50 years had 20 males and 8 females. The difference was significant (P<0.05).

Table II shows that right side was involved in 72 patients, left side in 14 patients and bilateral involvement was seen in 36 cases. The difference was significant (P<0.01).

Graph II shows that common risk factors associated were family history (8), bowel disturbances (5), smoking habit (20), cough (25), bladder disturbances (40), heavy object uplift (65), alcohol intake (40) and co-existing morbidities (32). The difference was significant (P<0.05).

Table I: Distribution of subjects

Total - 122		
Male	Female	P value
82	40	0.01

Graph I: Age wise distribution of patients

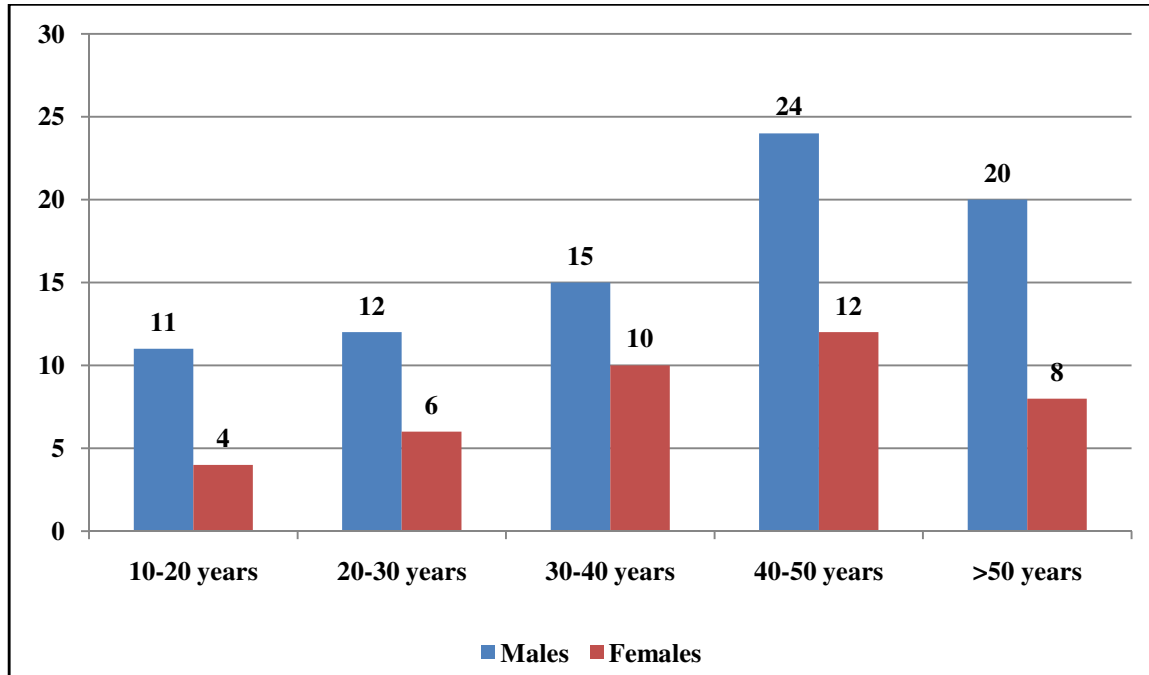
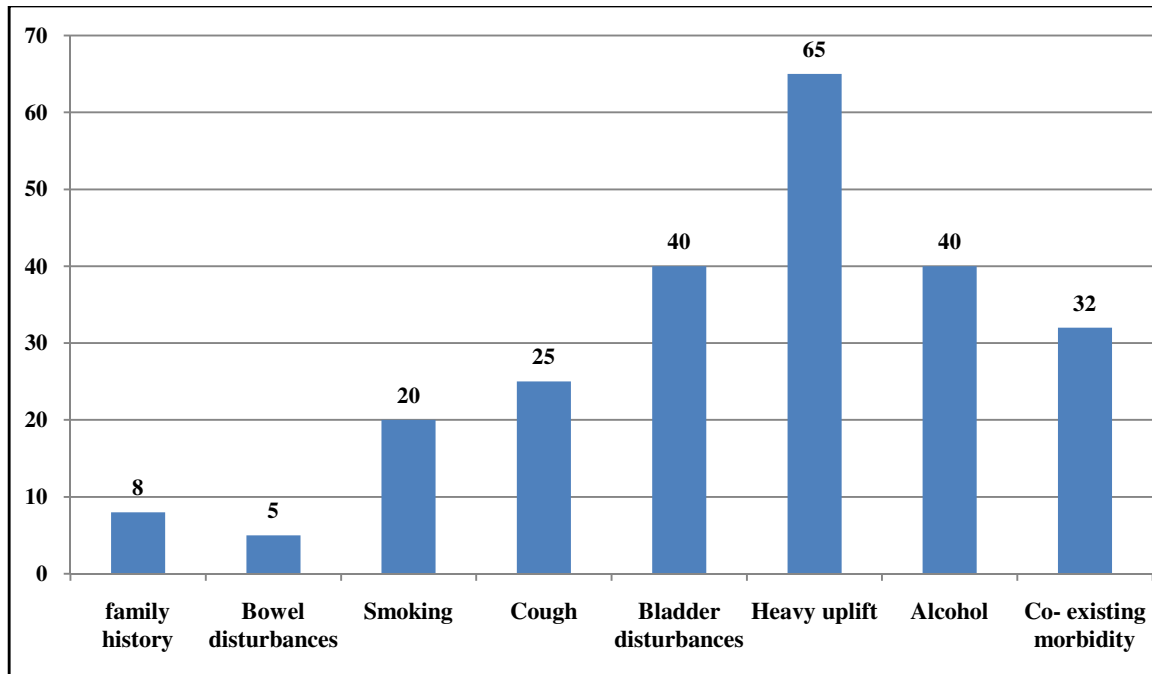


Table II: Side wise distribution

Right	Left	Bilateral	P value
72	14	36	0.01

Graph II: Risk factors associated in patients



DISCUSSION

Hernias present as bulges in the groin area that can become more prominent when coughing, straining, or standing up. The bulge commonly disappears on lying down. Mild discomfort can develop over time. The inability to "reduce", or place the bulge back into the abdomen usually means the hernia is 'incarcerated' which requires emergency surgery. The hernia truss is intended to contain a reducible inguinal hernia within the abdomen.⁵

Out of 122 patients, males were 82 and females were 40. Age group, 10-20 years had 14 males and 4 females, 20-30 years had 12 males and 6 females, 30-40 years had 15 males and 10 females, 40-50 years had 24 males and 12 females and >50 years had years had 20 males and 8 females.

About 30% of patients when asked, or on completion of a confidential questionnaire, report long term pain or discomfort at the hernia repair site. When asked at the clinic, 10% report pain that is usually mild but may be moderate to severe in 3% of patients, interfering with work and leisure activities.⁶

As the hernia progresses, contents of the abdominal cavity, such as the intestines, can descend into the hernia and run the risk of being pinched within the hernia, causing an intestinal obstruction. If the blood supply of the portion of the intestine caught in the hernia is compromised, the hernia is deemed "strangulated" and gut ischemia and gangrene can result, with potentially fatal consequences. The timing of complications is not predictable.⁷

We found that right side was involved in 72 patients, left side in 14 patients and bilateral involvement was seen in 36 cases. This is in agreement with Basuet al.⁸ It is not considered to provide a cure, and if the pads are hard and intrude into the hernia aperture they may cause scarring and enlargement of the aperture. In addition, most trusses with older designs are not able effectively to contain the hernia at all times, because their pads do not remain

permanently in contact with the hernia. The more modern variety of truss is made with non-intrusive flat pads and comes with a guarantee to hold the hernia securely during all activities.⁹

We found that common risk factors associated were family history, bowel disturbances, smoking habit, cough, bladder disturbances, heavy object uplift, alcohol intake and co-existing morbidities. This is in agreement with Nordback et al.¹⁰ Surgical correction of inguinal hernias is called a hernia repair. It is currently not recommended in minimally symptomatic hernias, for which watchful waiting is advised, due to the risk of post herniorrhaphy pain syndrome. Surgery is commonly performed as outpatient surgery. There is currently no medical recommendation about how to manage an inguinal hernia condition in adults, due to the fact that, until recently, elective surgery used to be recommended.

CONCLUSION

Author concluded that age group 40-50 years shows maximum cases. Inguinal hernia is more prevalent in males as compared to females. Common risk factors are bowel disturbances, smoking habit, cough, bladder disturbances, heavy object uplift, alcohol intake etc.

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