

A Study of the various risk factors associated with the inguinal hernia at the tertiary health care center

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Abstract

Introduction: Inguinal hernias, both primary and recurrent, are one of the most commonly encountered surgical problems in the out patients' department **Aims and Objectives:** To Study the various risk factors associated with the inguinal hernia at the Tertiary health care center. **Methodology:** This is a cross-sectional study carried out in surgery department of tertiary health care center during the one year period i.e. January 2014 to January 2015 in all the Patients at Out-patient Department (OPD) those patient were diagnosed as the Inguinal hernia were include into the study. The patient who was having malignancy and those came for post-operative complications were excluded from the study. Total 65 patients were selected for the study. All the demographic information and detailed clinical history seeking the associated risk factors were asked. The data is presented in the form of percentages. **Result:** In our study we found that Majority of the of the patients were in the age group of >50- 44.61% followed by 40-50-20.00%, 30-40-13.84%; 20-30-10.76%; 10-20-7.69%; 1-10-3.07%. Majority of the patients were Male i.e. 66.54% followed by Female 38.46%. Majority of the Patients associated with risk factors was Old age -44.61% followed by; H/O Smoking -33.84%; COPD-29.23%; Chronic constipation -27.69%; BPH -23.07%; Stricture urethra -20.00%. **Conclusion:** The majority of the risk factors associated with the inguinal hernia were Old age followed by; H/O Smoking, COPD; Chronic constipation; BPH; Stricture urethra

Keywords: Smoking, COPD (Chronic Obstructive Pulmonary Disease), BPH (Benign Prostatic Hyperplasia, Chronic constipation, Stricture urethra.

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INTRODUCTION

Inguinal hernias, both primary and recurrent, are one of the most commonly encountered surgical problems in the out patients' department¹. So a study of inguinal hernias in different categories of patients is deemed relevant in context of serious magnitude of the problem in our country. Hernias pose a tremendous economic and

physical burden to the patients. A hernia repair operation is often performed by a surgeon in training². The incidence of inguinal hernia was much higher in men than in women, as has been previously shown³. Increased intra-abdominal pressure has long been suspected in the pathogenesis of inguinal hernia, though with little quantitative evidence. We investigated but did not find an association with additional factors that might exert an effect through such a mechanism, including physical activity, constipation, chronic cough, and chronic obstructive pulmonary disease. Our physical activity measure was limited to two interview questions, each with three possible subjective responses. An increased risk of inguinal hernia with greater physical exertion was found in two Spanish hospital-based case-control studies investigating occupational activity⁵ or both work and recreational activity⁶, while greater current sports activity was found to decrease the risk among Dutch women⁷. There was no relation with work-related physical activity

among Israeli men². Other factors that might increase intra-abdominal pressure were not associated with inguinal hernia in previous studies, with the exception of an increased risk with obstipation in the Dutch study^{4,6,7}. The final factor that we found to be associated with a greater incidence of inguinal hernia was doctor-diagnosed hiatal hernia, which almost doubled the risk. Some men who reported a doctor-diagnosed hiatal hernia at baseline may have confused it with a history of inguinal hernia. However, an association between the two types of hernias was also seen in an Italian case-control study of endoscopy-diagnosed hiatal hernia⁸.

AIMS AND OBJECTIVES

To Study the various risk factors associated with the inguinal hernia at the Tertiary health care center.

MATERIAL AND METHODS

This is a cross-sectional study carried out in surgery department of tertiary health care center during the one year period i.e. January 2014 to January 2015 in all the Patients at Out-patient Department (OPD) those patient were diagnosed as the Inguinal hernia were include into the study. The patient who was having malignancy and those came for post-operative complications were excluded from the study. Total 65 patients were selected for the study. All the demographic information and detailed clinical history seeking the Associated risk factors were asked. The data is presented in the form of percentages.

RESULT

Table 1: Age wise distribution of the Patients

Age	No.	Percentage (%)
1-10	2	3.07%
10-20	5	7.69%
20-30	7	10.76%
30-40	9	13.84%
40-50	13	20.00%
>50	29	44.61%
Total	65	100.00%

Majority of the of the patients were in the age group of >50- 44.61% followed by 40-50-20.00% 30-40-13.84%; 20-30-10.76%; 10-20-7.69%; 1-10-3.07%.

Table 2: Genderwise Distribution of the Patients

Sex	No.	Percentage (%)
Male	40	66.54%
Female	25	38.46%
Total	65	100.00%

Majority of the patients were Male i.e. 66.54% followed by Female 38.46%.

Table 3: Study of Various Risk Factors Associated with Inguinal Hernia

Risk Factors	No.	Percentage (%)
Old age	29	44.61%
H/O Smoking	22	33.84%
COPD	19	29.23%
Chronic constipation	18	27.69%
BPH	15	23.07%
Stricture urethra	13	20.00%

Majority of the Patients associated with risk factors was Old age -44.61% followed by; H/O Smoking -33.84%; COPD-29.23%; Chronic constipation-27.69%; BPH-23.07%; Stricture urethra -20.00%

DISCUSSION

A defect in collagen synthesis by fibroblasts has been suggested as a cause of inguinal hernia^{10, 11}. Smoking, which may adversely affect connective tissue metabolism, has been proposed as a risk factor for inguinal hernia¹² and was associated with hernia recurrence among smokers in one study⁹. Despite the common occurrence and clinical significance of inguinal hernia, only a few studies have investigated risk factors for inguinal hernia^{4, 8}. Two studies found increased risk with strenuous exertion^{5,6}. Interestingly, being overweight was associated with lower risk in two studies^{4,7}. Associations with inguinal hernia were found in individual studies for varicose veins⁴, history of hemorrhoids⁴, smoking⁹, and hiatal hernia⁸. In our study we found that Majority of the of the patients were in the age group of >50- 44.61% followed by 40-50-20.00%, 30-40-13.84%; 20-30-10.76%; 10-20-7.69%; 1-10-3.07%. Majority of the patients were Male i.e. 66.54% followed by Female 38.46%. Majority of the Patients associated with risk factors was Old age -44.61% followed by; H/O Smoking -33.84%; COPD-29.23%; Chronic constipation -27.69%; BPH -23.07%; Stricture urethra -20.00%. The findings are in conformation with, Constance E. Ruhl¹³, Indranil Basu¹⁴

CONCLUSION

The majority of the risk factors associated with the inguinal hernia were Old age followed by; H/O Smoking COPD; Chronic constipation; BPH; Stricture urethra.

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