

Prevalence of Abdominal Hernia at a Tertiary Care Teaching Hospital

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ABSTRACT

Background: Abdominal wall hernias affect all age persons and both sexes. The main causative factor of hernia includes pregnancy, weight lifting, constipation, and weight gain. The aim of this study was to determine the prevalence of abdominal hernias among both sexes.

Materials and Methods: A cross-sectional study was conducted among 60 adults. Data was collected by personal interview via questionnaire and general and local examination. Data were analyzed by SPSS version 2.

Results: The results of present study showed that abdominal hernia was prevalent in age 31-50 years. In 2 hernia patients previous abdominal surgery was observed. Previous abdominal trauma was present in 3 patients. In 5 patients family history of hernia was present. Inguinal hernia was most prevalent type of hernia among given population.

Conclusion: Abdominal wall hernias are a common clinical condition. Inguinal hernia was most prevalent condition.

Keywords: Inguinal Hernia, Abdominal Hernia.

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INTRODUCTION

Abdominal wall hernias are a very common surgical condition affecting all ages and both sexes. It is an abnormal protrusion of a peritoneal lined sac through the muscular covering of the abdomen.¹ The most common symptoms of a hernia include a swelling in the groin, heavy feeling in the abdomen, and discomfort in the abdomen regions, especially when coughing, lifting or bending over. However, symptoms may not appear in some people and they will only realize that they have this condition during medical checkups.²

An abdominal wall hernia is an abnormal protrusion of a peritoneal-lined sac through the musculo-aponeurotic covering of the abdomen. Abdominal wall hernias are common, classically taught to occur in at least 2% of men¹ while statistics from the USA estimate 15 per 1000 population (1.5%).³ More than 20 million hernias are estimated to be repaired every year around the world.⁴

Approximately 75% cases of all abdominal wall hernias⁵ belong to groin. Lifetime risk of developing inguinal hernia is 15% - 27% in men and 3% in women.⁶ Although males are affected more commonly (7:1), the incidence of femoral hernia is four times higher in females.⁷ The incidence of hernia increases with

advancing age. Indirect hernia is twice as common as direct hernia. Inguinal hernias are more common on right side. In recurrent inguinal hernia, direct type is twice as common as indirect.⁸ The incidence of congenital hernias is more common in low birth weight babies. Incisional hernias are more common in males.⁸ The present study was conducted to assess the prevalence of abdominal hernia in the given population.

MATERIALS AND METHODS

This cross-sectional study was conducted among 60 adults in the period of 6 months. History taking was the first part of data collection and included patient demographics (gender, age, marital status), type of hernia repair undertaken, and whether a primary or recurrent hernia, family history of hernia, type of hernia and the type of treatment of every case, and complications if present. The investigation comprised of an interview at the subject's home and a subsequent examination by a doctor. The home interview included a question on the occurrence of hernia, past or present. If it was answered positively, the patient was asked if they had ever had an operation for a hernia. The

examination procedure was the one described by Bailey (1942). The examining physician reported whether, in each groin, there was a visible and clearly palpable hernia; a palpable impulse; or an operation scar.

The examination was conducted with the subject standing in a good light. After inspection, any visible lump was palpated to determine whether it was possible to 'get above it' with the thumb and index finger. If not, and if its neck was continuous with the inguinal canal or directed backwards into the abdomen, it was diagnosed as a palpable hernia.

If there was no visible lump, the scrotum was invigilated by the little finger to reach the external ring, and the subject was asked to cough, in order to determine whether there was a palpable impulse. An impulse at the scar site on coughing was taken as

evidence of recurrence. No attempt was made to distinguish between indirect and direct hernias. 'Swellings' and repaired hernias will be referred to below as 'obvious' hernias. Body weight (in Kg) and height was measured for calculation of BMI. Data were compiled and analyzed using SPSS, version 22 (SPSS Inc., Chicago, Illinois, USA).

RESULTS

The results of present study showed that abdominal hernia was prevalent in age 31-50 years. In 2 hernia patients previous abdominal surgery was observed. Previous abdominal trauma was present in 3 patients. In 5 patients family history of hernia was present. Inguinal hernia was most prevalent type of hernia among given population.

Table 1: Prevalence of hernia

Parameter	Number		P value
	Yes	No	
Abdominal hernia	8	52	<0.005
Age	20 -30 years	31-40 years	
	3	5	
Previous abdominal surgery	yes	no	
	2	6	
Previous abdominal trauma	Yes	No	
	3	5	
Family history of hernia	Yes	No	
	5	3	

Table 2: Site of Hernia

Site	N(%)
Upper abdomen	2 (3.33%)
Para-umbilical	1 (1.66%)
Umbilical	1 (1.66%)
Inguinal	3 (5%)
Incisional	1 (1.66%)

DISCUSSION

The abdominal hernia is a common condition between both males and females particularly the umbilical and para-umbilical hernia.² The results of present study showed that abdominal hernia was prevalent in age 31-50 years. In 2 hernia patients previous abdominal surgery was observed. Previous abdominal trauma was present in 3 patients. In 5 patients family history of hernia was present. Inguinal hernia was most prevalent type of hernia among given population.

Jack Abrahamson noticed 80% of hernia appearing within first 2 years Kings north AN and studies 77% developed within 3 years after operation.^{9,10}

Arshad M Malik et al., found maximum number of paraumbilical hernias (13%) followed by incisional and epigastric also male preponderance was seen overall.¹¹

Natalie Dabbas et al., in their study suggested frequency of different hernias in decreasing frequency as umbilical followed by epigastric, incisional and paraumbilical hernias.¹²

Toms PA et al., has said incisional hernia are more common following midline incision through the relatively avascular line and are less common following transverse incision, especially where muscle splitting approaches are been used.¹³

CONCLUSION

Abdominal wall hernias are a common clinical condition. Inguinal hernia was most prevalent condition.

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