

FREQUENCY OF EXTERNAL HERNIAS IN AYUB TEACHING HOSPITAL ABBOTTABAD

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Background: Hernia is a protrusion of a viscous or a part of a viscous through an abnormal opening in wall of its containing cavity. Different external hernias present differently and ultimate treatment is surgical, which is most commonly performed elective operation in the world. The objectives were to know the age and gender wise frequency of external hernias in Ayub Teaching Hospital, Abbottabad. This retrospective study was conducted at the surgical units of Ayub Teaching Hospital from June 2004 to June 2005. **Methods:** Records of all cases of hernias operated in Ayub Teaching Hospital during June 2004 to June 2005 were retrieved from the operation registers of the entire three surgical units available at the operation theatres. The data was collected on a proforma and was analysed by SPSS-16. **Results:** Of the 1063 cases, 982 (92.38%) were male and 81 (7.62%) were female. Right Inguinal Hernia (RIH) was the most frequent as expected, i.e., 44.12%, followed by Left Inguinal Hernias (LIH) 18.72%. Least common hernias were femoral hernias with a frequency of 0.85%. **Conclusion:** It is concluded that 85% hernias occur in the groin, with 12% incisional and only 3% hernias occur elsewhere. To reduce the rate of complications, health education is the most important intervention. For future health planning maintenance of disease register can not be over emphasised.

Keyword: External Hernias, Deep inguinal rings, Inguinal ligaments, Umbilical ring.

INTRODUCTION

For several reasons the occurrence of external hernias is difficult to estimate. If a hernia is small it may not be readily demonstrable on any one examination. In certain borderline cases, not all surgeons will agree as to whether or not the hernia is present. Other reasons include:

- Not maintaining the national register of disease in this country.¹
- Patients do not attend hospital or seek medical advice till complications occur.²
- Female patients because of religious considerations usually don't attend hospitals even in an event of complications.

Comparison with different geographical areas is also difficult because except for one, no studies have been carried out in our country.¹ Figures from European and US literature also vary from each other and so cannot be applied here.^{1,3-6}

This study has been conducted to know the occurrence of external hernias in Ayub Teaching hospital, Abbottabad, Pakistan by collecting data from Ayub Teaching Hospital (ATH), which is almost the sole recipient of patients from all over the division.

MATERIAL AND METHODS

A total of 1063 cases that were operated upon in Ayub Teaching Hospital during 2004–2005 were collected from the operation registers regarding type of hernia, age and sex. The data so collected on a proforma, was analysed using SPSS version 16.0.

RESULTS

Out of 1063 patients 982 (92.83%) were male and 81 (7.62%) were female. Results show that RIH occurred in most of the cases, 618 (58.14%) followed by LIH, 302 (28.4%). Indirect RIH and LIH were more compared to direct hernias (Table-1).

Table-1: Type wise comparison of different hernias

Hernia	Numbers	Percentage
Right Inguinal Hernia		
a) Direct	149	14.02
b) Indirect	469	44.12
Left Inguinal Hernia		
a) Direct	103	9.68
b) Indirect	199	18.72
Paraumbilical	68	6.40
Umbilical	42	3.95
Incisional	24	2.26
Femoral	9	0.85
Total	1063	100%

Table-2: Comparison of types of hernias in UK, USA, Peshawar and Ayub Teaching Hospital

Hernia	Britain ³⁻⁵	USA ^{3,4,6,8}	Peshawar ¹	Present
Inguinal	82.05	88.0	76.35	86.54
Paraumbilical	3.05	3.0	12.38	6.40
Umbilical	-	-	-	3.95
Incisional	6.50	10.0	2.7	2.6
Femoral	4.50	6.0	0.9	0.85

Table-3 shows that frequency of hernias was most common 328 (30.85%) in the ages above 50 years. It becomes more common as the age progresses. It was also observed that it was more common in males compared to females. With regard to feoral hernias, it was in the ratio of 0.8 to 1 in

males and females, whereas in the case of incisional hernias male to female ratio was 2:1 (Table-4). The proportions of strangulation were more in the case of femoral hernias (Table-5).

Table-3: Age wise Distribution

Age	Numbers	Percentage
Infants	46	4.33
1-10 years	157	14.77
11-20 years	82	7.71
21-30 years	144	13.55
31-40 years	123	11.57
41-50 years	183	17.22
50 years & above	328	30.85
Total	1063	100%

Table-4: Type of Hernias

Hernia	Male	Female	Ratio
Incisional	16	8	2:1
Femoral	4	5	0.8 :1

Table-5: Type of Complications Occurred

Hernia	Number	Strangulated cases	%
Inguinal	920	30	3.25
Femoral	9	2	21.42
Umbilical & Para-umbilical	110	1	0.9

DISCUSSION

After categorizing the collected data it became evident that the inguinal hernias occurred the most as expected⁷ and among the inguinal hernias the right inguinal hernias were more common. In inguinal hernias our findings are almost similar to that in Great Britain and USA.^{3,6} In femoral hernia the pattern of Peshawar is in consonance with ours. It seems that in the west the incidence of femoral hernia is more than our set ups.^{3,4}

As regards sex, males are predominant. In US male to female ratio is 5:1.⁸ The exceptionally high ratio in Hazara, i.e., 12:1 may be due to social considerations. The relatively low incidence of incisional and femoral hernias in our community may not be a true reflection of the reality as our population is not disease conscious.⁹ In contrast to western and the US studies, where femoral hernias are common in females² it is almost equal in our study. In the case of incisional hernias male to female ratio is 2:1. This may be attributed to the type of surgery performed on males resulting in sepsis, e.g., bullets, stabs.

The most serious complication of hernia is strangulation which is an acute surgical emergency and is potentially lethal.² In this study we came across only

3% of strangulations which is very low as compared to other studies^{5,6} conducted in developing countries. The percentage of strangulation in Nigeria is 35%⁵ and in the Indian Punjab it is 27%.⁶ In Europe and the US it is low secondary to prophylactic surgery.¹

The relatively high incidence of strangulation of femoral hernias is because of the narrowness of the neck of the sac and the firm rigid femoral ring.^{2,3}

CONCLUSION & RECOMMENDATIONS

In general, 85% of the hernias occur in the groin, 12% are incisional and almost 3% others. Our figures are comparable to international figures regarding inguinal hernias and comparable to local figures when femoral hernias are considered.

Maintenance of disease register is very important in this regard which will help future research in the field. Health education of our community is the need of the day to prevent complications and to get the real figures of the disease occurrence.

As occupation has almost no effect on the incidence of hernias⁴ the high incidence of hernias in age 50 years and above can be attributed to the progressive wear and tear, various muscular strains, disease processes etc. It is noted that the incidence decreases as age decreases but at the age group 1–10 yrs the incidence rises. This is because the congenital hernias are detected usually at this age.

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