

Prevalence of paraumbilical hernia and outcome at surgery inpatient department: A hospital based study

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Abstract

Introduction: Para umbilical hernia described as a acquired defect through decussating fibers of line a alba either above or below the umbilicus. It is more common in female, abdominal pressure increases in multiparty and obese case, heavy work lifting are pre disposing factors to develop the para umbilical hernia. This is second most common variety of ventral hernias, overall 0.3% of all hernias operations performed in UK. **Aims and Objective:** To study Prevalence of Para umbilical Hernia and Outcome at Surgery Inpatient Department. **Methodology:** This was a hospital based, cross-sectional study during 3 years period from March 2011 to March 2014 at tertiary health care Centre; Patients with Diagnosis of Para umbilical Hernia confirmed by ultra-Sonography was studied. Out of the Total 229 all hernia patients during this period 63 patients were Para umbilical at tertiary health care Centre. All the hernia were repaired surgically and observed Post-Operatively for any further complications. All the information was recorded with using semi structured questionnaire. **Result:** Prevalence was highest in Age >50 i.e. (57.14%) followed by 40-50 17.46%; 30-40 (14.28%); 20-30 (7.9%); 10-20 (3.17%); <10 (4.76 %). Para umbilical hernias found to be more prevalent in Females i.e. 63.49% than Male 36.51%. Most common associated factors were Female Sex (63.49%), Age ≥50 (57.14%), Obesity (BMI ≥30) (39.68%); H/O Chronic Cough/COPD (39.68%); Parity >5 (36.50%); H/O BPH (23.80%); H/O Constipation (22.22%); H/O Previous Caesarian Section (20.63%); Heavy Work Lifting (19.045); Previous H/O Abdominal Surgery (14.28%); Congenital H/O Umbilical Hernia (7.93%). 87.31% patients were recovered after surgeries, complications were observed in 8 patients i.e. 12.69% in most common complication was Recurrence (4.76%) followed by Hematoma 3.17% and Seroma (3.17%) and Wound infection (1.58%). **Conclusions:** Para umbilical hernia is highest prevalence after the age of 50yrs and more common in female sex and associated with the risk factors like Obesity, Chronic Cough, Previous Caesarian Section, Heavy Work Lifting etc.

Keywords: Para umbilical Hernia, COPD (Chronic Obstructive Pulmonary Diseases), BPH (Benign Prostatic Hyperplasia), Caesarian Section.

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INTRODUCTION

Para umbilical hernia described as a acquired defect through decussating fibers of line a alba either above or below the umbilicus¹. It is more common in female², abdominal pressure increases in multiparty and obese

case, heavy work lifting are pre disposing factors to develop the para umbilical hernia³. This is second most common variety of ventral hernias, over all 0.3% of all hernias operations performed in UK⁴ Elective surgery is a treatment of choice due to recognized risk of obstruction, incarceration and strangulation⁵, the choice of appropriate surgical procedure is still subject of debate. The established and simplest method of Mayo's repair in which transverse overlapping of defect with non absorbable suture material is carried out⁶. The use of mesh to repair the hernia defect either open or laparoscopic is widely used now a day⁷, the result of recurrence are lower in mesh repair with drain in paraumbilical hernia repair cases⁸. The wound infection is common among the post operative complications. However persistent low grade abdominal pain discomfort in breathing during abdominal wall movement, scar

formation, disfiguration at surgical site may be develop after post operatively^{9,10}. Muhammad Saleem Shaikh in their study observed Para umbilical hernia 26.1% of all hernia¹¹

AIMS AND OBJECTIVE

To study Prevalence of Para umbilical Hernia and Outcome at Surgery Inpatient Department.

METHODOLOGY

This was a hospital based, cross-sectional study during 3 years duration from Mar 2011 to Mar 2014 at tertiary health care Centre; Patients with Diagnosis of Para umbilical Hernia confirmed by ultra-Sonography was studied. Out of the Total 229 all hernia patients during this period 63 patients were Paraumbilical at tertiary health care Centre. All the hernia were repaired surgically and observed Post-Operatively for any further complications. All the information was recorded with using semi structured questionnaire.

RESULT

Table 1: Age wise Distribution of the Patients

Age	No.	Percentage
<10	3	4.76%
10-20	2	3.17%
20-30	5	7.9%
30-40	9	14.28%
40-50	11	17.46%
>50	36	57.14%
Total	63	100%

Prevalence was highest in Age >50 i.e. (57.14%) followed by 40-50 17.46%; 30-40 (14.28%); 20-30 (7.9%); 10-20 (3.17%); <10 (4.76 %).

Table 2: Sex wise Distribution of the patients

Sex	No.	Percentage
Female	40	63.49%
Male	23	36.51%
Total	63	100%

Para umbilical hernias found to be more prevalent in Females i.e. 63.49% than Male 36.51%.

Table 3: Distribution of the Patients as per associated Factors

Associated Factors	No.	Percentage
Female Sex	40	63.49%
Age ≥50	36	57.14%
Obesity (BMI ≥30)	41	65.07%
H/O Chronic Cough/COPD	25	39.68%
Parity >5	23	36.50%
H/O BPH	15	23.80%
H/O Constipation	14	22.22%
H/O Previous Caesarian Section	13	20.63%

Heavy Work Lifting	12	19.045
Previous H/O Abdominal Surgery	9	14.28%
Congenital H/O Umbilical Hernia	5	7.93%

Most common associated factors were Female Sex (63.49%), Age ≥50 (57.14%), Obesity (BMI ≥30); H/O Chronic Cough/COPD (39.68%); Parity >5 (36.50%); H/O BPH (23.80%); H/O Constipation (22.22%); H/O Previous Caesarian Section (20.63%); Heavy Work Lifting (19.045); Previous H/O Abdominal Surgery (14.28%); Congenital H/O Umbilical Hernia (7.93%)

Table 4: Distribution of the patients as per the Outcome

Outcome	No.	Percentage
Recovered	55	87.31%
Improved with Complications:	8	12.69%
1.Recurrence	3	4.76%
2.Hematoma	2	3.17%
3.Seroma	2	3.17%
4.Wound infection	1	1.58%
Total	63	100%

87.31% patients were recovered after surgeries, complications were observed in 8 patients i.e. 12.69% in most common complication was Recurrence (4.76%) followed by Hematoma 3.17% and Seroma (3.17%) and Wound infection (1.58%).

DISCUSSION

In our study we have observed that Prevalence was highest in Age >50 i.e. (57.14%) followed by 40-50 17.46%; 30-40 (14.28%); 20-30 (7.9%); 10-20 (3.17%); <10 (4.76 %). As the age increases the tone of muscle decreases causing hernias and; associated condition which are more common in the old age are COPD and Chronic cough and Constipation and BPH all contributes for the occurrence of the para umbilical hernia .This confirmative with the Abdul Qayoom Daudpoto *et al*¹². The most common associated condition with Para umbilical hernias found to be more prevalent in Females i.e. 63.49% than Male 36.51%. This could because of the reason this is almost secondary to Caesarian section. Most common associated factors were Female Sex (63.49%), Age ≥50 (57.14%), Obesity(BMI ≥30); H/O Chronic Cough/COPD (39.68%); Parity >5 (36.50%); H/O BPH (23.80%); H/O Constipation (22.22%); H/O Previous Caesarian Section(20.63%); Heavy Work Lifting (19.045); Previous H/O Abdominal Surgery (14.28%); Congenital H/O Umbilical Hernia (7.93%). These findings are confirmatory with Muhammad Saleem Shaikh¹¹ and Qayoom Daudpoto *et al*¹² also as per the Lydia Kraus¹³ about Risk factors writes: Certain people are born with a congenital defect (existing from birth) that causes the abdominal wall to be abnormally thin. They are at a greater risk for developing a ventral hernia. Other

risk factors for a ventral hernia include: pregnancy, obesity, history of previous hernias, history of abdominal surgeries, Injuries to the bowel area, family history of hernias, constantly lifting or pushing heavy objects. 87.31% patients were recovered after surgeries, complications were observed in 8 patients i.e. 12.69% in most common complication was Recurrence (4.76%) followed by Hematoma 3.17% and Seroma (3.17%) and Wound infection (1.58%).

CONCLUSION

Para umbilical hernia is highest prevalence after the age of 50yrs and more common in female sex and associated with the risk factors like Obesity, Chronic Cough, Previous Caesarian Section, Heavy Work Lifting etc.

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