

EXPERIENCE WITH EXTERNAL HERNIAS

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SUMMARY

A study of 400 cases operated in surgical department of Hayatabad Medical Complex Peshawar during the period from January 1997 to May 1999 is presented. The prevalence of various types of hernias found was – inguinal (direct, indirect) 77.5%, umbilical 6.25%, para-umbilical 6.25% and femoral hernia 0.75%. Recurrent inguinal hernia was found in 2.25%. The study showed that males were predominantly affected and majority of the inguinal hernias were on the right side. In this series dacron mesh was used with good outcome. All the indirect and direct inguinal hernias were operated by Halstead's technique with very good postoperative results.

INTRODUCTION

Herniorrhaphy is a very common surgical operation performed. We practice open procedure for repair of hernias and have low recurrence rate of 2.25%. In developed countries with the great stress and liking for minimal invasive procedures, laparoscopic approach for repairing hernia is becoming very popular.¹ Different approaches for repair of inguinal hernia have been in the practice with encouraging post operative results, but the best method is still unclear.

In Europe and other developed countries with sound financial status laparoscopic tension free repair has yielded very good results in terms of short post operative stay in hospital and very low rate of complications and recurrence. In our set up with financial difficulties and huge population open tension free repairs is equally good in terms of post operative complications and recurrence. We advise and support this open procedure in our situation.

MATERIAL AND METHODS

Four hundred cases of external hernias operated were studied. All these patients

were admitted in the ward a day before surgery. Baseline investigations were done. These included hemoglobin, blood sugar and urea, urine examination and chest X-ray. All patients above 50 years had their ECG done. These patients were seen by the anaesthetist the night before surgery regarding their fitness for general anaesthesia. Antibiotics were given as soon as the patients was anaesthetised. We were using cepheradine 500 mg given at the time of anaesthesia. Except two cases of groin hernia all were operated by Bassini's and Halstead's dacron mesh. Umbilical and paraumbilical hernias were repaired by double breasting technique.

RESULTS

In this series it was found that majority of the hernias were groin hernias (indirect, direct and femoral hernias) Table-I. Indirect inguinal hernias made the bulk of the series. Out of 400 cases 276 were indirect inguinal hernias and 34 were direct. Indirect inguinal hernias are rare in females. In this series only 2 cases were found. All the 34 direct hernial were in males only. No direct hernias was found in females. Except recurrent

TABLE - I
EXTERNAL HERNIAS
N = 400

Type of Hernia	No. of patients	%age
Inguinal (Indirect)	276	69%
Inguinal (Direct)	34	8.5%
Umbilical Hernia	25	6.25%
P.U.H.	25	6.25%
Incisional Hernia	15	3.75%
Epigastric Hernia	13	3.25%
Rect. Inguinal Hernia	09	2.25%
Femoral Hernia	03	0.75%
Total	400	100%

inguinal hernias; para umbilical hernia, umbilical hernia, epigastric hernia, femoral hernia and incisional hernia were found predominately in females.

It was also noted that majority of the hernias were in the age group of 55 to 65 years (52.5%) Table-II. Next common age was 40-45 years (20%). This coincides with the concept that potentially existing unobliterated processes vaginalis opens and allows the hernia to develop.

Out of 313 groin hernias 246 were on the right side. This coincides with the study conducted by Arthur J Gilbrt² where majorities of the hernias were on the right side. Table-III.

The complications encountered in our series were wound sepsis, wound haematoma and recurrence of inguinal hernia. We had one recurrence of inguinal hernia repaired in a child on the 1st post operative day. This was operated in emergency and the neck of sac was found opened due to the slippage of the ligature. In two cases we performed post herniorrhaphy orchiectomy due to gradually increasing wound haematoma.

DISCUSSION

Herniorrhaphy is a very common general surgical operation. Predominantly groin hernias are more commonly seen than others. Recurrence is a problem after herniorrhaphy, particularly the inguinal hernias (2.25%). A study conducted by Rand Corporation revealed that 10% of all the primary hernia repairs will fail. The main cause of recurrence has been shown to be the tension on the tissues. Iriving L. Liechtenstein³ support this. He showed no recurrence in 1000 cases of inguinal hernia repair after 05 years follow up. He repaired the posterior wall by a piece of dacron mesh with out putting any tension on the tissue. R.T.J. Holl-Allen^{4,6} described a similar method with the difference that the internal ring was narrowed prior to putting the mesh. He described a recurrence of 1.25% in 3 years follow up. Here again he has demonstrated that the slight tension created by narrowing of the internal ring resulted in higher recurrence rate than that of Iriving procedure in which the internal ring is not

TABLE - II
N = 400

Age	0-6 years	7-17 years	18-29 years	30-39 years	40-54 years	55-65 years	Above 65
Number of Patients	15	15	30	30	80	120	20
%age	3.75%	3.75%	7.5%	7.5%	20%	52.5%	5%

TABLE – III
SEX, TYPE AND SIDE
N = 400

Type	Side	Male	Female	Total
Indirect Inguinal Hernia	R	224	2	226
	L	50	0	50
Direct Inguinal Hernia	R	22	—	22
	L	12	—	12
Umbilical Hernia	—	1	24	25
Para Umbilical Hernia	—	1	24	25
Incisional Hernia	—	4	11	15
Epigastric Hernia	—	1	12	13
Recurrent Inguinal Hernia	—	9	—	9
Femoral Hernia	—	—	3	3
Total		325(81.25%)	75(18.75%)	400

interfered with. Bassini did first true herniorrhaphy in 1884. In this method post wall is reinforced by bringing together inguinal ligament with conjoint tendon and narrowing of the internal ring. After 5 years follow up he reported a recurrence of 10%.

In our series all the hernias were repaired by reinforcing the defects by bringing together of tissues i.e. Bassini's and Halstead's methods were employed. Our recurrence rate was shown 2.25%. In our set up this is very acceptable rate. Prior-MJ et al^{5,10} comparing Litchinsein with modified Bassini repair of inguinal hernia showed no difference between the two procedures regarding the post op recurrence, urinary complications, infection or other complications. Although tension free technique using synthetic meshes have encouraging results, the best method of inguinal hernia repair is still unclear¹¹.

In European countries the laparoscopic repair is becoming popular. Zierren J et al,⁹ in his series compared laparoscopic repair with open mesh tension free repair and with

Shouldice repair. It was found that open mesh repair is a promising technique of hernia repair in adults because it offers the same excellent results as in laparoscopic repair and the procedure is less expensive and can be done under local anaesthesia.⁷

Parl A1, et al conducted a series comparing laparoscopic and open incisional hernia repair. He found that laparoscopic repair took longer time and was more expensive then open repair but was associated with fewer perioperative complications and shorter hospital stay⁸.

No doubt laparoscopic repair is becoming increasingly popular but in our set up where we have to deal with large number of patients and therefore, open hernias repair is more suitable for our set up.

Huge incisional hernias poses a difficult problem for the general surgeons because of high incidence of recurrence (50%) and a reported 10% infection. Franklin MB et al⁸ showed that the laparoscopic repair has greatly reduced the rate of recurrence and the rate of infection^{12,13}.

In our set up open tension free repair method using large size of synthetic meshes in giant incisional hernias have yielded satisfactory results. With the evolution of minimally invasive surgery, laparoscopic repair of all kind of hernias has given promising results as regards patients comfort, low incidence of infection and shorter stay in the hospital and low rate of recurrence, but is takes longer time and is for more expensive.

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