

A Prospective Study Evaluating The Use Of polypropelene Mesh in Emergency Surger of Obstructed Hernias

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Abstract

Introduction: One of the most common complication regarding emergency hernia surgery is concerned is its recurrence rate .In cases of obstructed hernias whether umbilical, incisional & inguinal hernioplasty has added advantage over herniorrhaphy with regards to low recurrence rates, less postoperative pain , less chances of seroma,and less postoperative complications.The only contraindication for hernioplasty is gangrenous bowel or toxic fluid,which can lead to infection to mesh later,further to mesh rejection.

Aims And Objectives

1. To evaluate the use of polypropelene mesh in the emergency surgery of obstructed hernias
2. To compare the outcome of patients operated using mesh (plasty) versus anatomical repair (rhaphy) in terms of immediate and early / late post operative complications

Mareials & Method: This is a prospective study comprising 54 patients of obstructed hernia over a period of 6 months from march 2016 to August 2016 with 12 months follow-up. In this present study, the clinical material consists of patients admitted with obstructed hernia (both males and females) in the Department of General Surgery at Government Rajaji Hospital, Madurai. The size of the sample work to 54 cases. 36 cases with hernioplasty (group A) 18 cases with herniorrhaphy (group B).

Result: A total of 54 patients of obstructed hernias who underwent emergency surgery in Department of general surgery, Government Rajaji Hospital, Madurai during the period from march 2016 to august 2017, were included in this prospective study, and randomized into two groups . Patients with (Group A) 38 patients with HERNIOPLASTY, and 16 patients with herniorrhaphy (Group B). Patients were evaluated , age, sex, time of presentation , pain, seroma, and wound complications, recurrence Patients who underwent hernioplasty and herniorrhaphy were evaluated for recurrence rates and it was found that no recurrences occurred out of the 38 cases of hernioplasty, while 4 cases out of the 16 cases of herniorrhaphy developed recurrence with a significant p value of 0.011.

Conclusion: For many decades Light's criteria had been used widely to differentiate exudative from transudative pleural effusion. But it also misclassified 25 % of transudates as exudates, so there was a need to identify new parameters which would prove to be superior or supportive to the array of tests at present. From our study we came to know that there was statistically significant criteria [p value < 0.001] in classifying pleural effusion as exudates and transudates by using pleural fluid uric acid and pleural fluid/serum uric acid ratio. umbilical, incisional, inguinal, hernioplasty, herniorrhaphy.

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I. Introduction

One of the most common complication regarding emergency hernia surgery is concerned is its recurrence rate .In cases of obstructed hernias whether umbilical, incisional & inguinal hernioplasty has added advantage over herniorrhaphy with regards to low recurrence rates, less postoperative pain , less chances of seroma, and less postoperative complications. The only contraindication for hernioplasty is gangrenous bowel or toxic fluid, which can lead to infection to mesh later, further to mesh rejection.

II. Aims And Objectives

1. To evaluate the use of polypropelene mesh in the emergency surgery of obstructed hernias.
2. To compare the outcome of patients operated using mesh (plasty) versus anatomical repair (rhaphy) in terms of immediate and early / late post operative complications.

III. Methodology

This is a prospective study comprising 54 patients of obstructed hernia over a period of from march 2016 to August 2016 with 12 months follow-up. In this present study, the clinical material consists of patients admitted with obstructed hernia (both males and females) in the Department of General Surgery at Government Rajaji Hospital, Madurai.

3.1 Method of collection of data:

The size of the sample worksto 54 cases. 36 cases with hernioplasty (group A) 18 cases with herniorraphy (groupB).

3.2 Inclusion Criteria

Patients admitted with obstructed hernias (Inguinal, umbilical & incisional).

1. Cases above age 15 years of age
2. Cases diagnosed as obstructed hernia
3. Operated in emergency operation theatre
4. Cases who underwent release of obstruction
5. Cases who consented for the study

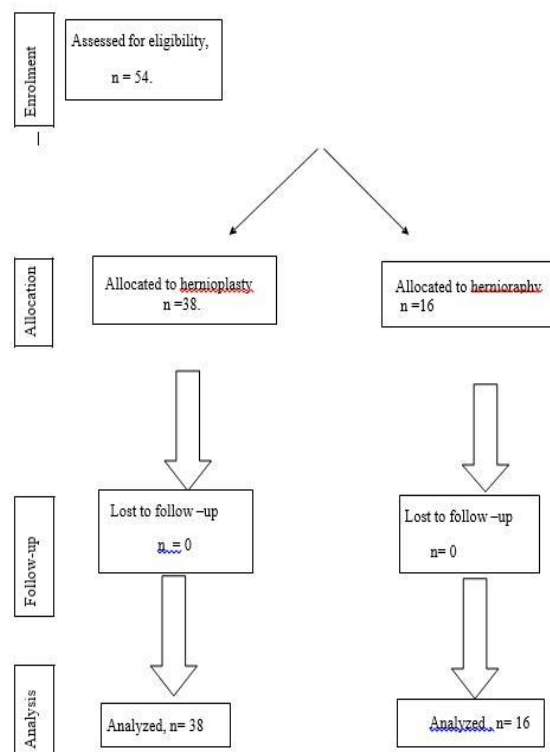
3.3 Exclusion Criteria:

1. Patients below 15 years of age.
2. Patients who underwent previous tissue repair
3. Patients who did not give consent for study
4. The data will be collected in prescribed PROFORMA where in it contains, articulars of the patient, Clinical history, clinical examination and diagnosis, Relevant investigations, and details of surgery.

3.4 Follow-Up

Period of follow up being 12 months from the day of surgery. Parameters used for comparison-Age, Sex, Time duration, Pain, Seroma, Hematoma, Wound infection, Retention of urine Recurrence Ethical clearance has been obtained from ethical committee of Government Rajaji Hospital, Madurai.

Statistical analysis: statistical analysis was done using chi square test



IV. Results And Observation

A total of 54 patients of obstructed hernias who underwent emergency surgery in Department of general surgery, Government Rajaji Hospital, Madurai during the period from march 2016 to august 2017, were included in this prospective study, and randomized into two groups .Patients with (Group A) 38 patients with HERNIOPLASTY,and 16 patients with herniorrhaphy (Group B). Patients were evaluated , age, sex, time of presentation , pain, seroma, and wound complications, recurrencePatients who underwent hernioplasty and herniorrhaphy were evaluated for recurrence rates and it was found that no recurrences occurred out of the 38 cases of hernioplasty,while 4 cases out of the 16 cases of herniorrhaphy developed recurrence with a significant p value of 0.011.

Table 1 : Age Distribution

Age in years	No.of	Percentage
	cases	
< 30	2	3.7
31 - 40	8	14.8
41 - 50	10	18.5
51 - 60	23	42.6
> 60	11	20.4
Total	54	100.0

Patients are taken from age >30 ->60 of which 42.6 % of patients where

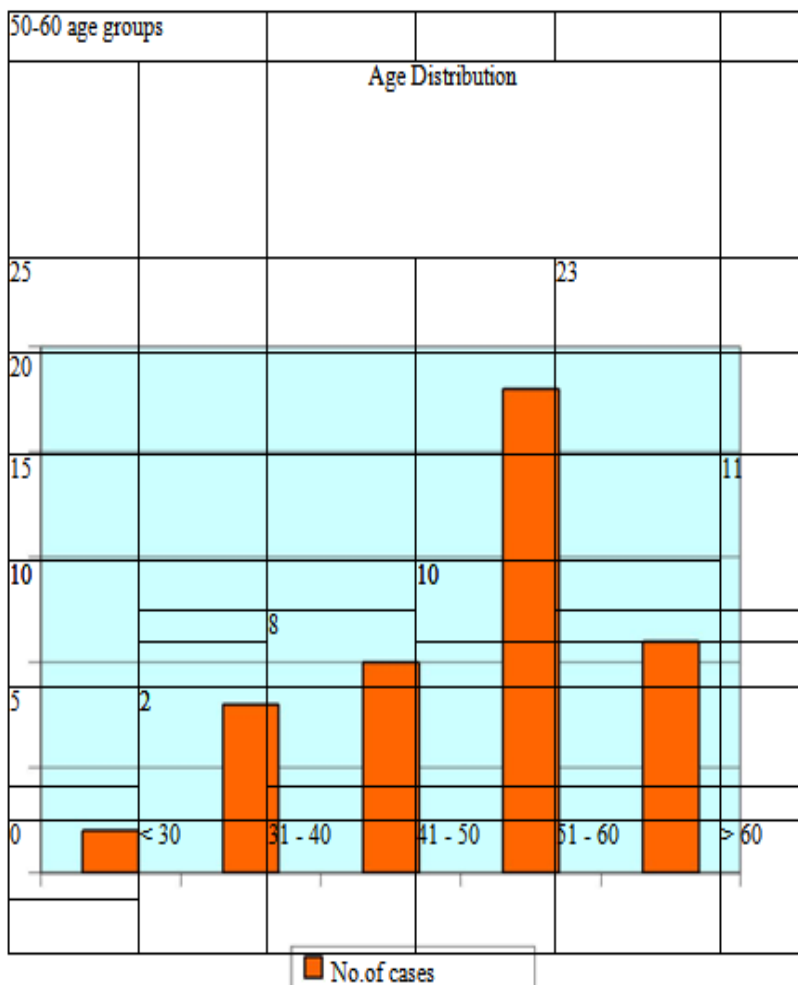


Table 2 : Sex Distribution

Sex	No.ofcases	Percentage
Male	40	74.1
Female	14	25.9
Total	54	100.0

Of the total 54 cases , 40 were male and 14 female

Sex Distribution

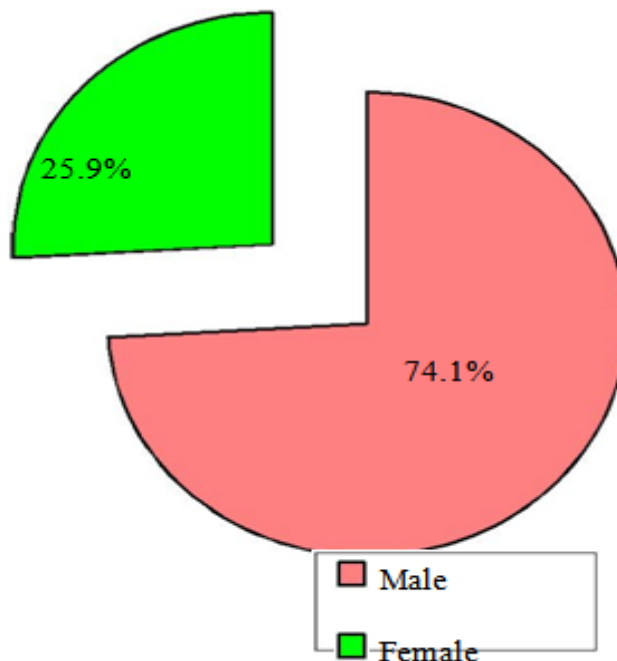


Table 3 : Procedure

Procedure	No.of cases	Percentage
Hernioplasty	36	66.7
Herniorraphy	18	33.3
Total	54	100.0

For 66.7% of the cases hernioplasty was done and rest 33.3% herniorraphy was done

Procedure

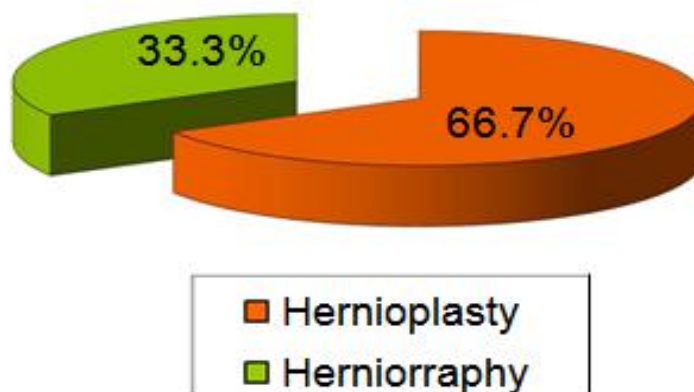


Table 4 : Diagnosis

Diagnosis	No.of cases	Percentage
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Inguinal Hernia	29	53.7
Incisional Hernia	13	24.1
Umbilical Hernia	12	22.2
Total	54	100.0

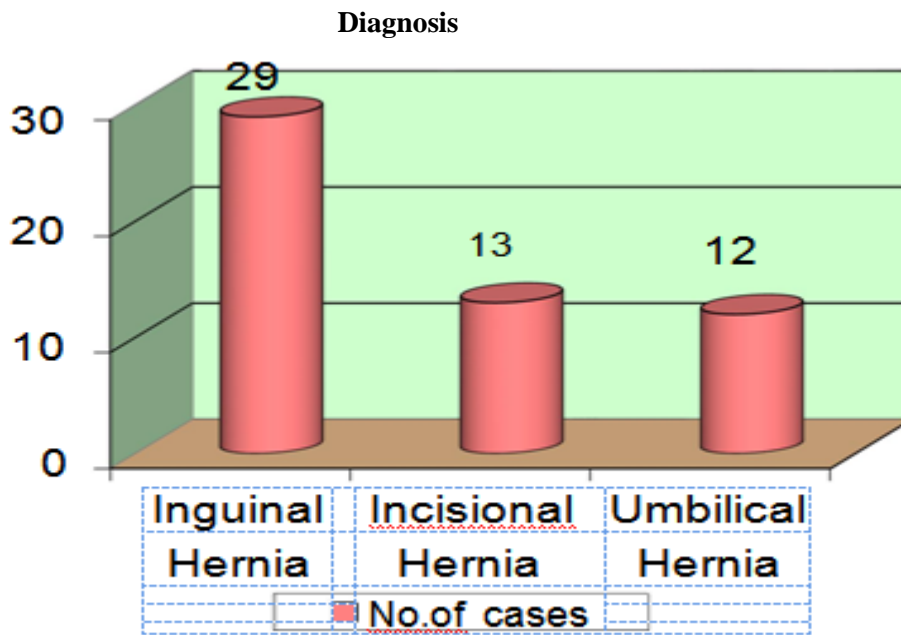


Table 5 : Diagnosis VS Gender Distribution

Diagnosis	Male	Female
Inguinal Hernia (29)	27	2
Incisional Hernia (13)	5	8
Umbilical Hernia (12)	8	4
total	40	14

Diagnosis Vs Gender Distribution

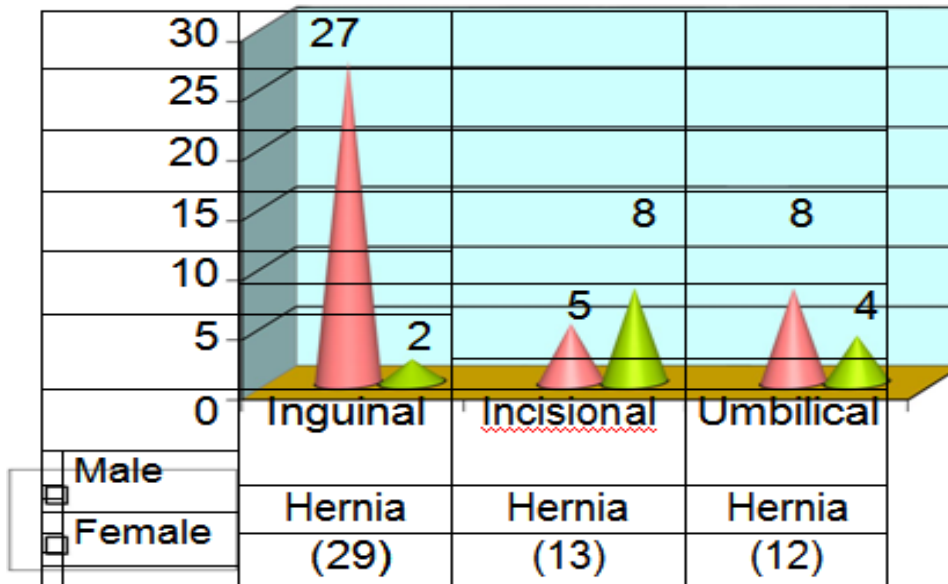


Table 6 : Age Vs Procedure

Age in years	Hernioplasty	Herniorraphy
< 30	1	1

31 - 40	5	3
41 - 50	7	3
51 - 60	15	8
> 60	8	3
Total	36	18

Age Vs Procedure

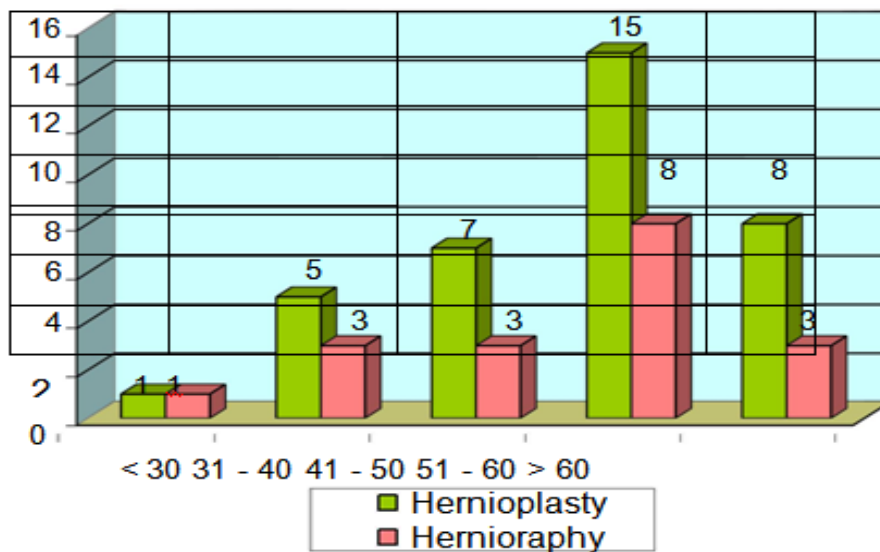


Table 7 : Gender Vs Procedure

Sex	Hernioplasty	Herniorraphy
Male	30	10
Female	6	8
Total	36	18

Gender Vs Procedure

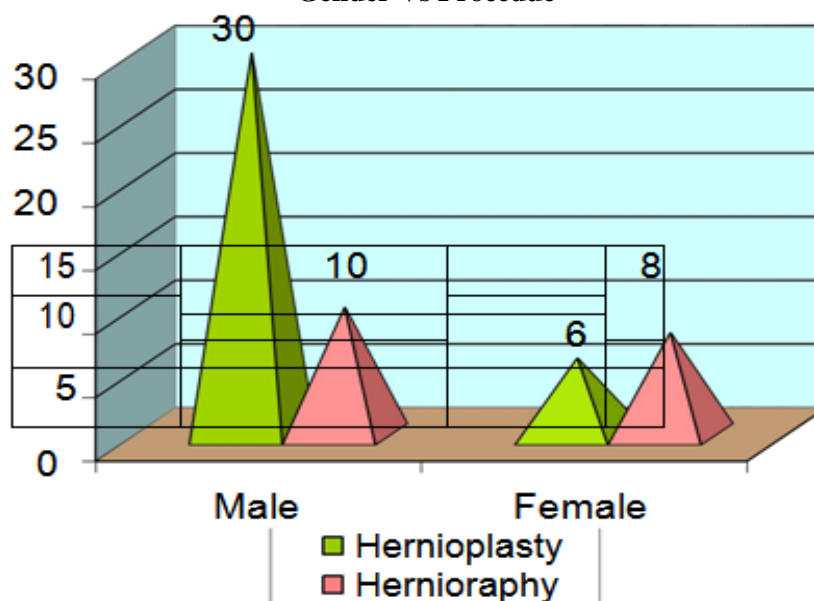


Table 8 : Duration of Surgery

Duration	Number of Patients	Number of Procedures
< 60 (48)	32	16
61 - 90 (5)	3	2

91 - 120	(1)	1	0
Total		36	18

Duration Of Surgery

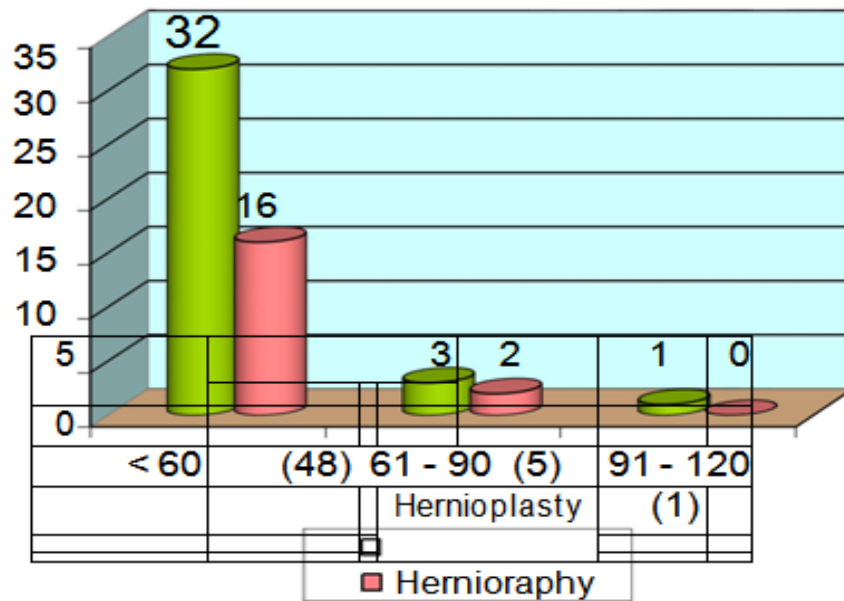


Table 9 : Early Complication

Early Complications	Hernioplasty	Hernioraphy
Retention of Urine	1	1
Wound infection	1	2
Hematoma	1	1
Wound dehiscence	1	1
Seroma	4	3

Seroma to be the most common complication found in both hernioplasty and hernioraphy

Early Complications

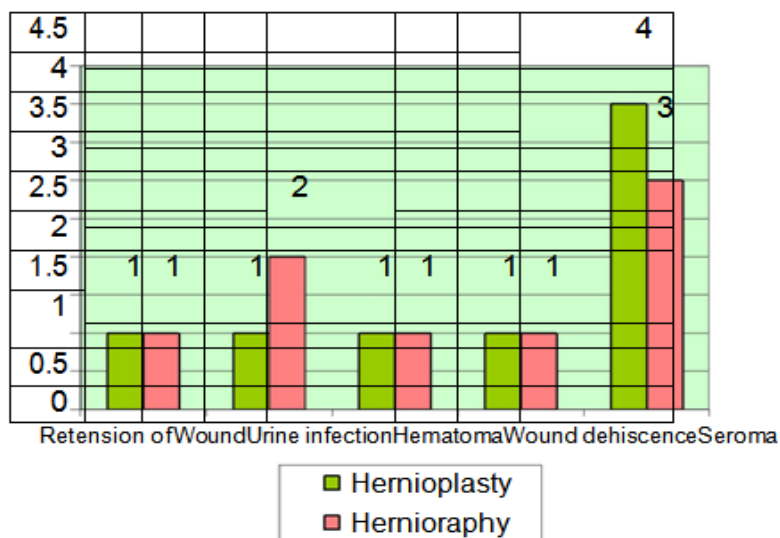


Table 10 : Recurrence

Late Complications	Hernioplasty	Hernioraphy
Persistent pain	4	5

in the next 6 months another 2 case got recurred, so in total 4 cases resented with recurrence, comaring with group A there was no recurrent cases, so having a significant value of 0.011.

Annexures

VIII. Bibliography

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