

Comparison of absorbable and non-absorbable using phasix st, ventralight and omyra meshes in laparoscopic repair

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Table 1: Sociodemographic characteristics:

No. of Cases	57 LIVR + sac excision + defect closure	8 primary closure and sac excision
Variables	Frequencies n (%)	
Age N= 57	Less than 49	n=14 (24.6%)
	49-58	n=21 (36.8%)
	More than 58	n=22 (38.6%)
	Mean Age	54.67
Gender N= 57	Male	n=13 (22.8%)
	Female	n=44 (77.2%)
BMI N= 57	18-24	n=5 (8.8%)
	24.01-30	n=13 (22.8%)
	30.01-35	n=15 (26.3%)
	Above 35.01	n=24 (42.1%)
Mesh Type N= 57	Phasix ST	n=25 (43.9%)
	Ventralight	n=16 (28.05%)
	Omyra	n=16 (28.05%)
De-novo Recurrent N= 57	De-novo	n= 48 (84%)
	Recurrent	n=9 (16%)
Operated N=9	Phasix ST	4
	Ventralight	1
	Omyra	4
Comorbidities N= 56	DM	3
	HTN	4
	DM+HTN	4
	DM+Dyslipedemia	5
	All	15

Total number = 65

Table 2: Frequency of pain with type of mesh:

Variables	Chi square (df) Mesh Type				
	Variable	All meshes	Phasix ST	Ventra light	Omyra
Post OP pain N=56	No pain	N=21 (37.5%)	N=9 (42.9%)	N=4 (19%)	N=8 (38.1%)
	Pain	N=35 (62.5%)	N=16 (45.7%)	N=11 (31.4%)	N=8 (22.9%)
	$\chi^2 = 1.84$, df= 2 , sig= 0.39				
Pain after 1 week N=56	No pain	N=33 (58.9%)	N=17 (51.5%)	N=8 (24.2%)	N=8 (24.2%)
	Pain	N= 23 (41.1%)	N=7 (30.4%)	N=8 (34.8%)	N=8 (34.8%)
	$\chi^2 = 2.45$, df= 2 , sig=0.29				
Pain after 1 month N=56	No pain	N=47 (83.9%)	N=21 (44.7%)	N=11 (23.4%)	N=15 (31.9%)
	Pain	N=9 (16.1%)	N=3 (33.3%)	N=5 (55.6%)	N=1 (11.1%)
	$\chi^2 = 4.10$, df= 2 , sig=0.12				
Pain after 3 months N=56	No pain	N= 46 (82.1%)	N=20 (43.5%)	N=13 (28.3%)	N=13 (28.3%)
	Pain	N=10 (17.9%)	N=4 (40%)	N=3 (30%)	N=3 (30%)
	$\chi^2 = 0.04$, df= 2 , sig=0.98				
Pain after 6 months N=55	No Pain	N=51 (92.7%)	N=22 (43.1%)	N=14 (27.5%)	N=15 (29.4%)
	Pain	N=4 (7.3%)	N=1 (25%)	N=2 (50%)	N=1 (25%)
	$\chi^2 = 0.96$, df= 2 , sig=0.61				
Pain after 1 year N=41	No Pain	N=37 (90.2%)	N=10 (27%)	N=13 (35.1%)	N=14 (37.8%)
	Pain	N=4 (9.8%)	N=2 (50%)	N=2 (50%)	N=0 (0%)
	$\chi^2 = 2.38$, df= 2 , sig=0.30				
Pain after 2 years N=27	No Pain	N=25 (92.6%)	N=2 (8%)	N=11 (44%)	N=12 (48%)
	Pain	N=2 (7.4%)	N=1 (50%)	N=0 (0%)	N=1 (50%)
	$\chi^2 = 3.82$, df= 2 , sig=0.14				
Complications N= 7 (9.9%) Out of 56	Radiological Seroma formation	N= 4 (57.1%)	N= 1 (25%)	N= 3 (75%)	-
	$\chi^2 = 0.058$, df= 1 , sig=0.8				

Table 3: Recurrence over 2 years follow up:

	Variable	Less than 1 month	At 1 month	6 months	At 1 year	At 2 years
Recurrence	No Recurrence	N= 57 (100%)	N= 52	N= 49	N= 43	N= 56
	Recurrence	0	0	0	0	0

Abstract

Background and Objectives

There are many meshes used to repair ventral hernia surgeons find difficulty to choose the ideal mesh.

Objective

The aim of this study to use 3 mesh (Phasix™ ST, Ventralight Omera) to repair ventral hernia laparoscopy. Moreover laparoscopic repair, sac excision and percutaneous repair of the hernia defect.

Methods

A retrospective cohort study that involve patients who underwent laparoscopic ventral hernia repair, using Ventral laparoscopic percutaneous repair of ventral and excision of the sac and defect closure at King Khalid University Hospital (KKUH), under one surgeon from January 2016 – July 2019. Including 57 patients were evaluated for chronic pain and recurrence, using different type of mesh, Phasix ST, ventralight and Omyra mesh. Our main outcomes are: Hernia recurrence and pain at site of repair after 1, 3,6,12, and 24 months of surgery, data were extracted from the hospital record system, phone call and OPD visits.

Results

Sample size was N=57, using different types of meshes, Phasix ST (N= 25), Ventralight (N=16) and Omyra mesh (N= 16). No statistical significant between different types of meshes used in ventral hernia repair. However, Phasix showed the least pain between the meshes at 1, 3, and 6 months. No significant relation between type of meshes and recurrence rate as the there was no recurrence reported among participants. 4 patients developed seroma. Please see table 1, 2, and 3.

Conclusion

No recurrence and chronic pain is encountered during follow-up of this study. Pain score is less in Phasix™ ST is less however, is not significant. Primary results of laparoscopic repair, sac excision and defect closure show comparable results of Phasix™ ST is seems to be safe, feasible to be used in Laparoscopic repair of ventral hernia. On the other hand prospective study and more patient will give the final recommendation.

