

A PROSPECTIVE CASE-CONTROL STUDY COMPARING POSTOPERATIVE PAIN SCORES BETWEEN IPOM VS ETEP FOR VENTRAL HERNIA REPAIR

ASSOCIATION OF LAPAROSCOPIC SURGEONS

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DR VENKAT AKHILESH THOTA [1] [3], DR PINAK DASGUPTA [3], DR.DEEPTHI KIRAN R.[4] , MR RAJESH T. KOCHUPAPY[2] [3]

[1]CHETTINAD HOSPITAL AND RESEARCH INSTITUTE, KELAMBAKKAM, INDIA

[2]DERRIFORD HOSPITAL – UNIVERSITY HOSPITALS OF PLYMOUTH – NHS TRUST, PLYMOUTH, UNITED KINGDOM

[3]GEM HOSPITAL, CHENNAI, INDIA [4]ESI MEDICAL COLLEGE & PGIMSR, BENGALURU, INDIA



AIMS

Enhanced view total extraperitoneal hernia repair (ETEP) is a new modality in Abdominal Wall Reconstruction (AWR).

As ETEP needs more tissue dissection it was hypothesized that it will cause more pain.

Our study prospectively compared ETEP hernioplasty vs IPOM hernioplasty in ventral hernia repairs on pain scores.

METHODS

Thirty-one patients were included in this study during an International hernia carnival in GEM hospital, Chennai, India, during March 5-15th, 2020.

Adult patients who had incisional hernia were included in this study. The patients who underwent complex operations were excluded.

11 Patients with ETEP repair with Prolene mesh and 20 patients who had IPOM repair with Parietex™ mesh were included in this study.

Patients demography and the size of the hernia were matched.

Postoperative analgesia for these patients were standardised with Paracetamol , Diclofenac and Pantoprazole for 3 weeks period.

Patients were discharged on the second post-op day, and an independent assessor called the patient to obtain the visual analogue scale.

They were assessed prospectively using a visual analogue pain score for three weeks.

RESULTS

The collected data were assessed by an independent assessor. An independent t-test was done with the type of surgery as an independent variable and average pain score as the dependent variable. Results showed no statistically significant difference in average pain scores between these two types of surgery.

A repeated measure (within-subjects) ANOVA was run with time from surgery as the Independent variable, and pain scores as dependent variables. The results of the ANOVA showed a significant difference of pain scores between different times from surgery (week 0, week1,week 2, week3); $F(1.447,147.667)=42.17$, $p<0.001$.

CONCLUSION

eTEP is a new and novel approach for AWR . It needs extensive dissection in the retrorectus plane. Simple prolene mesh can be used in this technique. IPOM needs complex and costly Paritex mesh tacked to the parietal wall to prevent adhesions.

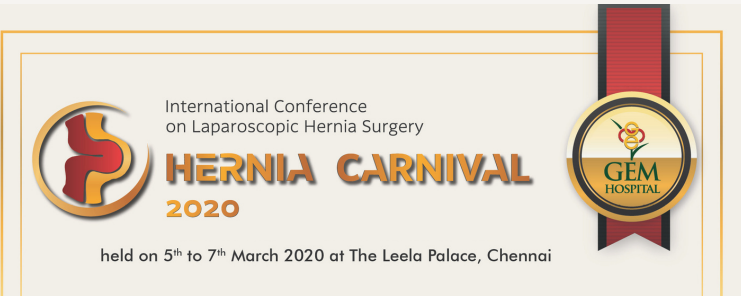
Our prospective non randomized study proves there is no difference in pain scores.

KEY STATEMENT

There is a statistically significant difference in pain scores between different times from surgery (week 0, 1, 2, 3);

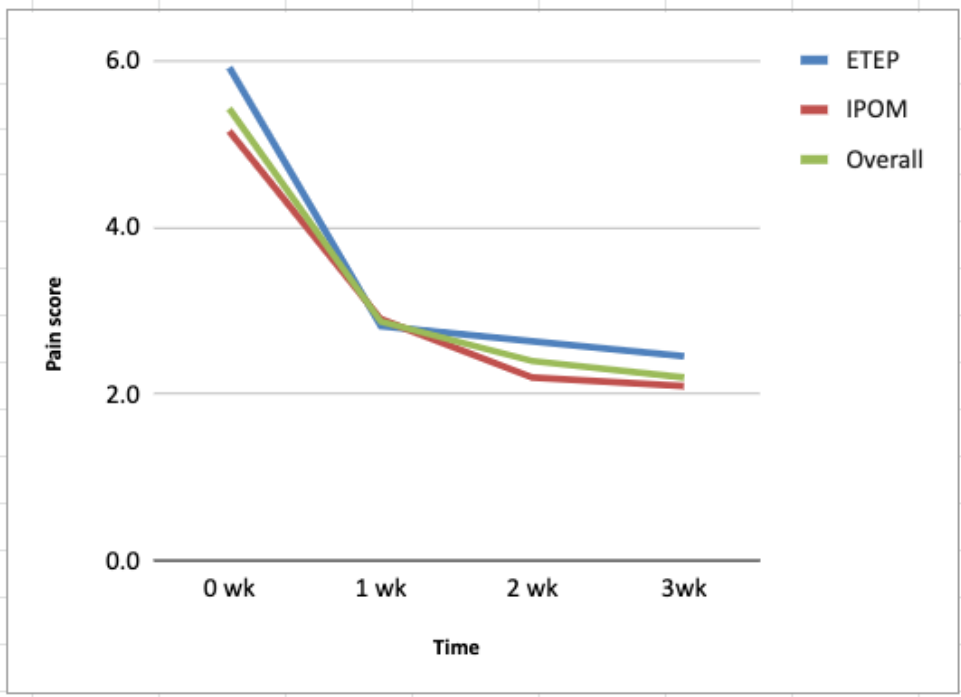
There is no statistically significant difference in the postoperative pain experienced by patients operated by eTEP and the ones operated by IPOM hernioplasty.

In the future a well powered RCT in needed to compare these two techniques.



Days of measurement	Type of Surgery	No of participants	Mean Pain score	SD	t value	df	p Value	
Pain 0 day	ETEP	11	5.9	2.7	0.80	29	0.43	
	IPOM	20	5.2	2.5				
	Total	31	5.4	0.5				
Pain 7 day	ETEP	11	2.8	1.7	-0.14	29	0.89	
	IPOM	20	2.9	1.4				
	Total	31	2.9	0.3				
Pain 14 day	ETEP	11	2.6	1.5	0.89	29	0.38	
	IPOM	20	2.2	1.2				
	Total	31	2.4	0.2				
Pain 21 day	ETEP	11	2.5	1.4	0.84	29	0.41	
	IPOM	20	2.1	0.9				
	Total	31	2.2	0.2				
Average pain score	ETEP	11	3.5	1.6	0.748	29	0.46	
	IPOM	20	3.1	1.1				
	Total	31	3.3	1.3				

Chart 1: Comparison of ETEP and IPOM Pain scores



Graph 1 : ETEP , IPOM and Overall Pain scores over a 3 week period