Tailored Approach to Ventral Hernia—Our Proposed Algorithm

Sarfaraz Jalil Baig¹ · Pallawi Priya¹

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Ventral hernia surgery is undergoing a sea of change. There is an increasing trend towards Abdominal Wall Reconstruction for complex hernias. There is also a shift from Anterior Component Separation Technique (ACST) to Posterior Component Separation Technique (PCST) with Transversus Abdominis Release (TAR) after encouraging results were reported by the pioneer of TAR, Dr. Yuri Novitsky [1]. Another advancement is posterior component separation with minimal access leading to new procedures and nomenclatures like Extended Totally Extraperitoneal Rives-Stoppa (eTEP-RS) and Extended Totally Extraperitoneal Transversus Abdominis Release (eTEP-TAR) pioneered and popularized by Dr. Igor Belyansky [2].

We have tried to incorporate these procedures in our hernia surgery and have devised an algorithm based on the literature evidence. Hernia width remains the most important determinant in our procedure selection.

Our protocol is depicted in Table 1.

In many situations, a lateral release in the form of ACST or PCST is needed for defect closure. However, since our pre-

ferred space is retromuscular and eTEP allows TAR to be performed in the same space, we prefer eTEP-TAR.

A few factors that affect our selection apart from the hernia width are the compliance of the abdominal wall, obesity, and wound factors (incision, recurrence, previous mesh, sinus, or redundant skin). We encourage weight loss in obese patients and use the cut off of BMI 40 Kg/m² to recommend bariatric surgery.

We have been using this algorithm for past 2 years and have gotten satisfactory results in our audit. We have done a total of 56 cases. Our results are shown in Table 2.

Two of these complications (bulge and injury to linea semilunaris) may be due to the initial learning curve associated the procedure.

It is too early to make any firm opinions but this could initiate a model for a tailored approach to ventral hernias in centers dedicated to hernia repair and modifications can be added as new evidence continues to arrive.

✉ Pallawi Priya
dpallawipriya@gmail.com

Sarfaraz Jalil Baig
docsarfarazbaig2@gmail.com

¹ Department of Minimal Access Surgery, Belle Vue Clinic, 8&9, Dr U N Brahmachari Street, Kolkata 700017, India

Table 1 Algorithm for procedure selection in ventral hernia

< 2 cm, primary, asymptomatic	Suture repair/IPOM
< 2 cm, recurrent/incisional	IPOM
2–4 cm	IPOM Plus
2–6 cm in obese	IPOM Plus
5–8 cm/divarication	eTEP-RS
9–12 cm, overlying skin normal	eTEP-TAR
Atypical location	eTEP-TAR
Recurrence	eTEP-TAR
> 12 cm	Open TAR
9–12 cm with redundant skin; any width with adverse wound factors (previous mesh/sinus tract/scar)	Open RS/ACST/ PCST/Onlay Myocutaneous flaps

Table 2 Short-term results of proposed algorithm

Total cases = 56	Complications (follow-up 3 to 24 months)
Suture repair (2)	1 acute myocardial infarction (Open TAR)
IPOM (2)	1 seroma needing therapeutic aspiration (eTEP-TAR)
IPOM Plus (20)	1 dehiscence of defect suture due to hematoma requiring suturing on POD1 (eTEP-TAR)
eTEP (14)	
eTEP-TAR (10)	1 partial anterior dehiscence leading to a bulge (eTEP-TAR)
Open TAR (7)	
Myocutaneous Flap (1)	1 injury to right linea semilunaris leading to ipsilateral abdominal weakness and bulge (Open TAR)
	1 recurrence (eTEP-TAR)

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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