

INTRAOPERATIVE FASCIAL TRACTION: A GAME-CHANGER FOR COMPLEX HERNIA CLOSURE

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AIM

Achieving total closure of the anterior rectus abdominis fascia remains challenging in complex incisional hernia surgery, even with component separation techniques.

Our aim is to compare the incidence of “bridging” (i.e., inability to close the anterior rectus abdominis fascia) in W3 incisional hernias (>15 cm) with and without intraoperative fascial traction (IOFT).

MATERIALS & METHODS

This retrospective study included patients with W3 incisional hernias (>15 cm defect width) who underwent surgery between October 2018 and March 2024.

Clinical and demographic characteristics, hernia dimensions, area, and bridging incidence were compared between patients with and without IOFT.

Univariate analysis employed absolute/relative frequencies, mean, and standard deviation. Bivariate analysis used Wilcoxon, Fisher’s exact test, and Student’s t-test, with statistical significance set at $p < 0.05$.

RESULTS

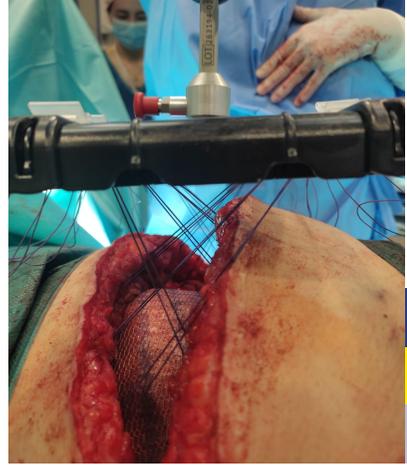
Forty-two patients underwent surgery; 10 received IOFT. No significant differences in demographics or prehabilitation data were observed between groups.

Bridging prevalence was lower in the IOFT group (10%) compared to the non-IOFT group (65.6%) [$p = 0.003$]. The mean bridging area was also smaller in the IOFT group ($5.89 \text{ cm}^2 \pm 18.63$) compared to the non-IOFT group ($27.45 \text{ cm}^2 \pm 34.21$) (Table 1).

Surgical techniques did not significantly differ between groups (Figure 1).

CONCLUSIONS

IOFT facilitates anterior rectus abdominis fascia closure in patients where closure was otherwise unachievable. Further studies are required to compare IOFT with anterior component separation regarding morbidity and costs.



	Intraoperative Fascial Traction		p
	NO (n=32)	YES (n=10)	
Bridging	21 (66%)	1 (10%)	0,003*
Mean bridging area	27,45+/-34,21cm ²	5,98+/-18,63cm ²	0,009#

Table 1. Bridging and bridging area analysis. *Fisher’s test, # Wilcoxon test.

Figure 1: Surgical Techniques

