

Prevention of incisional hernia post emergency laparotomy:

A time to change? A case series



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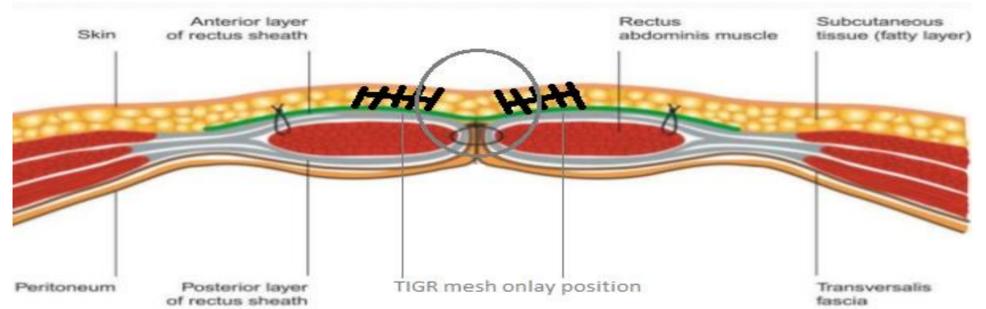
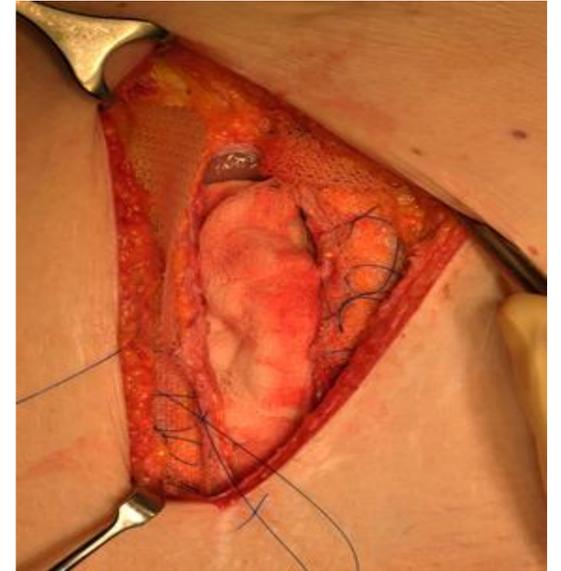


INTRODUCTION

Emergency laparotomy is complicated by incisional hernia in about 30% of patients. Recent paradigm shifts in abdominal closure suggest hernia prevention by onlay mesh insertion at the time of index laparotomy. However, conceptual difficulties arise with mesh insertion in the presence of sepsis. This poster presents our experience of onlay mesh post emergency laparotomy in a series of 6 patients. A retrospective study was undertaken at Letterkenny University Hospital in 2018 of patients undergoing emergency laparotomy for intra-abdominal pathology followed by onlay TIGR® mesh (Novus Scientific, Uppsala, Sweden) insertion

TECHNIQUE

- 3cm bilateral clearance of the anterior rectus sheath
- Onlay mesh placement by continuous locking 2-0 Prolene suture
- 1 nylon closure through sheath and mesh



PATIENTS

6 patients (4 female, mean age 57, range 32-84) underwent onlay mesh as part of their incisional hernia prevention program. Peri-operative illness severity was significant:

Scoring System	Median (Range)
Mannheim Peritonitis Index (predicted mortality)	26% (13-30%)
POSSUM Operative Score (predicted mortality)	17% (3.9-58.7%)
APACHE II	10.8 points (7-15)

TIGR MESH®

- Dual fibre bio-absorbable mesh composed of glycolide, lactide and trimethylene carbonate
- Fibres differ based on degradation characteristics and duration of tensile strength:

Fibre Composition	Tensile Strength	Resorption
Fast resorbing	3 weeks	4 months
Slow resorbing	6 months	3 years

Mesh was inserted either at the initial operation or at completion of a temporary abdominal closure. All patients received a wound bundle to reduce SSI incorporating wound protectors, double gloving, antibiotic, wound washout, peritoneal washout, subcutaneous suturing and incisional negative pressure.

RESULTS

Complication	N
Incisional hernia	0
Wound infection	1
Seroma	0

CONCLUSION

Our initial experience with onlay mesh in septic patients is encouraging. While long term follow up is required, it supports the increasing paradigm shift of mesh insertion as a prophylactic measure to prevent incisional hernia.