

Long-term results of laparoscopic totally extra-peritoneal groin hernia repair with self-gripping polyester mesh

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Background

- ❑ Laparoscopic groin hernia repair is an increasingly common procedure, with benefits of reduced post-operative pain and infection.
- ❑ Postoperative chronic pain remains an ongoing concern in about 10% of patients.
- ❑ Parietex ProGrip (Covidien, Dublin, Ireland), a polyester self-gripping mesh, has a theoretical benefit of avoiding tacks for mesh-fixation.
- ❑ This case series reflects our long-term experience of this technique.

Methods

- ❑ Single centre retrospective case series from November 2011 to December 2017.
- ❑ Patients were identified through operative item number search
- ❑ Clinical documentation was reviewed, with prolonged stay, mesh/wound infection, pain, recurrence and reoperation as primary data points

Results

- ❑ A total of 514 patients underwent 780 laparoscopic inguinal hernia repairs with self-gripping polyester mesh during this period.
- ❑ There were 53 female (10.3%) and 461 male patients (89.7%).
- ❑ Unilateral hernia repair was performed in 248 patients (48.2%) and bilateral repair in 266 patients (51.8%).
- ❑ 779 (99.8%) of the repairs were on primary hernias. There were no mesh infections.
- ❑ Four recurrences were noted (0.51%) and three of these subsequently underwent open redo-hernia repairs (0.38%).
- ❑ Post-operative follow-up was up to 4.4 years

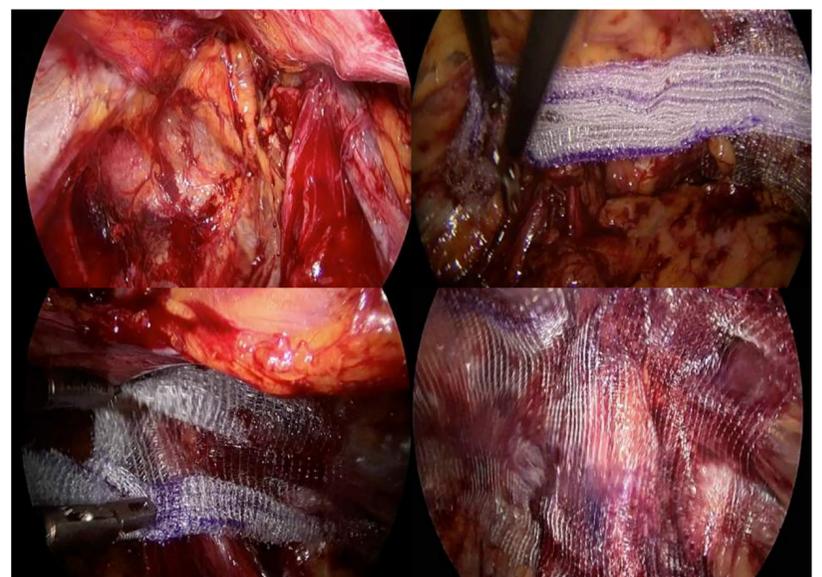
Patient Demographics	
Number of total patients	514
Total number of repairs	780
Female	53 (10.3%)
Male	461 (89.7%)
Age (mean years)	57.87 (±16.0)
Unilateral	248 (48.2%)
Bilateral	266 (51.8%)

Table 1 (Above) Patient demographics of this study

Table 2 (Below) Morbidity divided into the timeframes of immediate and delayed.

Immediate morbidity	
Hematoma/Seroma	11 (1.41%)
Lipoma herniation	11 (1.41%)
Urological Complication	11 (1.41%)
Prolonged stay	3 (0.38%)
Wound infection	1 (0.13%)
Hematological Complication	4 (0.51%)
Delayed Morbidity	
Chronic pain	13 (1.67%)
Recurrence	4 (0.51%)
Re-operation	3 (0.38%)

- Figure 1** (Below) **A.** Dissection of the preperitoneal space
B. Positioning of the mesh over the deep inguinal ring
C. Unrolling of the mesh following the contour of the groin and pelvis
D. Deflation of the preperitoneal space following satisfactory positioning of the mesh



Conclusion

This study provides long-term data on a large cohort of patients that have undergone a standardized laparoscopic mesh groin hernia repair using a self-gripping mesh. The data suggests that it is a safe and effective technique.