

Robotic transabdominal retromuscular umbilical prosthetic hernia repair: initial experience with Versius® surgical system

Giada Di Flumeri ¹, P. Mirco ¹, PMC. Tomaiuolo ¹ and A. Crucitti ¹

¹ Mini-invasive General Surgery Unit, “Cristo Re” Hospital, Rome, Italy

Aim: In the recent era robotic platforms allowed to perform the technically demanding steps of minimally invasive hernia repairing techniques. Our aim is to describe the introduction of Robotic Transabdominal Retromuscular Umbilical Prosthetic Hernia Repair (TARUP) at a referral center for advanced mini-invasive surgery of abdominal wall performed with Versius® robotic platform from CMR surgical (CMR Surgical Evolution Business Park, Cambridge, UK).



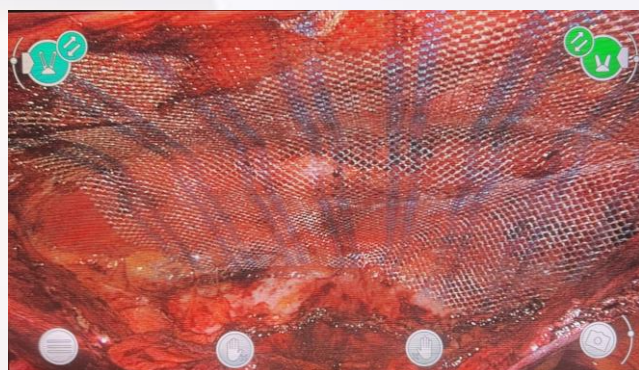
Material and methods: From September 2023 to December 2024 we performed ten TARUP with Versius®. Three bed side robotic units were positioned on the left side of the patient in a ‘Z’ shape.

The ipsilateral posterior rectus sheath was incised to create a retromuscular space. The hernia content was reduced. The junction between the anterior and posterior rectus fascia was incised to cross-over the linea alba and continue the dissection contralaterally. A 15 ×15 cm polypropylene mesh was positioned in the retrorectus space and fixed with four sutures at the cardinals point. The ipsilateral rectus posterior sheath was sutured.



Mean (SD, min-max) or % (N)	
Operating time (minutes)	
Setup time	8.7 (5.7, 4 - 23)
Surgery time	166.6 (19.7, 134 - 203)
Console time	151 (22.5, 112 - 190)
Duration of follow-up (months)	8.1 (4.1, 4 - 15)
Post-operative complications	
Surgical site infection	0
Seroma	0
Retromuscular hematoma	10% (1)
Recurrence	0

Results: Ten patients were included. Mean diameter of the defect was 2.9 cm (primary hernia in eight patients and trocar site hernia at the umbilicus in 2 patients). Average setup time was of 9 minutes, average surgery time was of 166 minutes, average console time was of 151 minutes. One patient presented a postoperative retromuscular hematoma, conservatively treated, nor other complications neither recurrences were detected so far (mean FUP 8 months).



Conclusion

Robotic TARUP is feasible and safe with Versius® robotic platform and it can be used to repair selected defects that require retromuscular mesh.