

Ventral and incisional hernia repair: comparison of laparotomic, laparoscopic and robotic techniques. Preliminary results from a single centre.

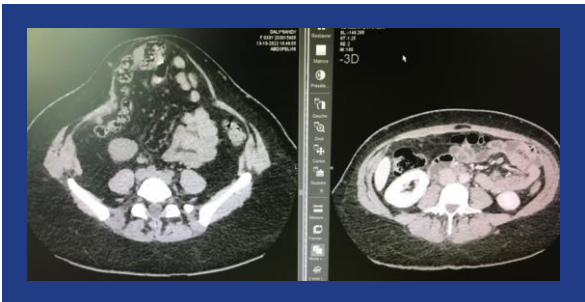
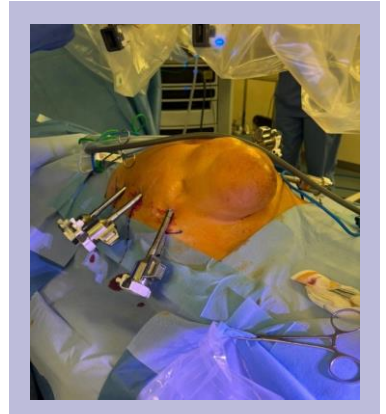
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Aim

Ventral and incisional hernias are common conditions that can be treated using various surgical techniques. One of the main advantages of minimally invasive surgery is its lower rate of wound infections, along with a shorter postoperative hospital stay. This study aims to compare the outcomes of three surgical approaches, emphasizing the potential benefits of minimally invasive techniques, particularly robotic surgery.

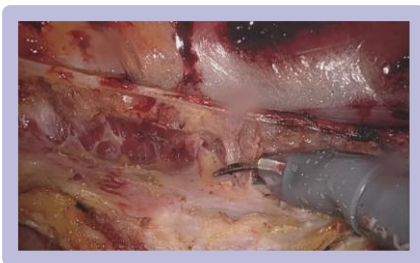


Material & Methods

This is a retrospective monocentric study including data from January 2022 to June 2024.

Results

Of 236 patients, 111 (47%) underwent open surgery, 79 (33.5%) laparoscopic surgery, and 46 (19.5%) robotic surgery. Patients with incisional hernias were more frequently treated with robotic approach (54 Vs 28, $p = 0.032$). Regarding the size of hernia defect, the average area was 41.6 ± 45.1 cm² for robotic surgery, indicating a statistically significant difference, that means that larger defects are treated robotically ($p = 0.001$). Operating time was longer in the robotic group ($p=0.001$). Significant differences were observed regarding prosthesis type used, both comparing robotic and laparotomic approaches ($p = 0.001$) and comparing robotic and laparoscopic approaches ($p = 0.001$). Postoperative length of stay was longer in the laparotomic group ($p = 0.015$) and the rate of wound infection was lower in the robotic group (0 Vs 17, $p = 0.003$).



Conclusions

Robotic surgery offers the advantage of treating larger and more complex hernias that may only be addressed through open surgery. Robotic approach allows for shorter hospital stays and quicker recovery, compared to the laparotomic method, despite its longer operative time.

References

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