

Peer Review File

Article information: <https://dx.doi.org/10.21037/ales-23-56>

Reviewer A

This is a short description of a TAPP inguinal hernia repair using the new Hugo RAS system. The authors added a video which demonstrates nicely the robotic operation. The authors conclusion is focused on the safety of patients while using new technologies and should be commended.

Comments:

1. The authors state in the video that they have found the Hugo RAS safe and effective in performing inguinal hernia surgery. This statement in my mind is quite premature having performed only one case. I would modify this statement or just remove it.
2. The authors present the docking procedure in the video but do not mention this in the written report. They state that the major difference between the Hugo RAS and the daVinci is the modular arms, but this comes with another major difference which is the docking that is considerably different and needs to be learned and trained. They should add 1-2 sentences describing this significant difference.
3. Although the authors should be commended on their first general surgery procedure in Australia, it is worthwhile to mention and cite the experience with the Hugo RAS world wide, Specifically for this report I would cite the first case series of TAPP repair using the Hugo RAS:

Robotic inguinal hernia repair with the new Hugo RAS system: first worldwide case series report.

Mintz Y, Pikarsky AJ, Brodie R, Elazary R, Helou B, Marom G.

Minim Invasive Ther Allied Technol. 2023 Aug 21:1-7. doi: 10.1080/13645706.2023.2248243. Online ahead of print.

Thank you for your comments:

- 1- Here we present our first experience with a new platform. We found it to be safe and feasible. We report an early and limited experience; the generalisability of this experience is far from universal, which we believe is self-evident.
- 2- In the context of a case report (as opposed to a 'surgical technique report'), with the accompanying video, we believe technical details are adequately addressed.
- 3- We appreciate you bringing our attention to the publication by Mintz et al published recently in Minim Invasive Ther Allied Technol. Here we do not aim to present a comprehensive review of the literature on Hugo RAS. We believe we have used adequate references for our narrative.

Reviewer B

This is an interesting case report on the feasibility of utilizing a new robotic technology

for an inguinal hernia repair. Although you mentioned the main difference being the modularity of the arms of the Hugo, it would be beneficial to go into further details about the specifics of the arms and other differences from the DaVinci Robot. The case report should also include more about the patient's medical history and symptoms.

Thank you for your comments:

- 1- In the context of a case report (as opposed to a 'surgical technique report'), with the accompanying video, we believe technical details are adequately addressed.
- 2- We have included the relevant clinical details. We do not believe additional details would enhance the manuscript.

Reviewer C

The authors presented a case report about using the Hugo robotic system to perform an inguinal hernia -TAPP.

Strength: It was reported as the first robotic inguinal hernia-TAPP performed with Hugo system in Australia. However, several issues need to be addressed to further improve the case report.

1) The authors are suggested to sharply point out what contribution this case report provide to medical knowledge and/or what educational value highlighting a need/opportunity for a change in surgical practice or approaches. Current description is too vague, just emphasize on "new" knowledge in general.

2) The authors state that "we have demonstrated the feasibility of the Hugo RAS system in inguinal hernia repair". However, "feasibility" may not be the right term to use given if it were not a feasible surgical tool, the government would not approve its use. Based on the description, the authors seem to report implementation (set up, control) differences at the operational level, and slightly touch down patient outcomes. Namely, the "convenience" of operation when compared to Da Vinci (and lap inguinal hernia?) Thus, I would recommend the authors to reconsider the wording and/or clearly define "feasibility" if they still choose to use it.

3) Need to clarify patient's follow up visit is in 2 week, 4 weeks or 30 days in the manuscript.

4) Depending on how the authors define "feasibility" and "safe and effective", a brief comparison of clinical metrics between robotic inguinal hernia -TAPP via Hugo and Lap inguinal hernia/robotic inguinal hernia-TAPP via Da Vinci may be needed to support the key findings.

Thank you for your comments:

- 1- During the early uptake of a new platform, we believe case reports are a valuable contribution to the body of literature.
- 2- Here we present our first experience with a new platform. We found it to be safe and feasible. We report an early and limited experience; the generalisability of this experience is far from universal, which we believe is self-evident.

- 3- The follow-up was at 4 weeks. This information was in the video, and we have altered the manuscript to reflect this (see page 2, line 63)
- 4- Further studies are required to demonstrate equivalence between the Hugo RAS system and existing minimally invasive platforms in inguinal hernia repair; this is outside the purview of this manuscript.

Reviewer D

Thank you very much for the excellent report on the HUGO RAS system. We have a few questions for facilities that are contemplating robot-assisted inguinal hernia repair using this system in the future.

How many cases of inguinal hernia repair has the surgeon experienced with the da Vinci system?

This case was a right-sided hernia, but how should the arms be positioned for a left-sided hernia?

Thank you for your comments:

- 1- The authors are proficient in minimally invasive inguinal hernia repair, having performed hundreds of laparoscopic and da Vinci robotic TAPP repairs.
- 2- The authors use the same ports and docking approach for left and right-sided groin hernia repairs.

Reviewer E

First general surgery operation with modular robotic system in australia.
good video quality and instruction.
acceptable technique

Thank you for your comments.

Reviewer F

Well edited video. Why is an accessory port necessary. The standard lap hernia only uses 3 ports
Since you were using a new device the robot should the statement about ethics be “yes”

Thank you for your comments:

- 1- The fourth port is used for the AirSeal to be able to be utilised. AirSeal requires a standalone port when using the Hugo RAS. This (using fourth port) was the authors' standard approach using the da Vinci system, prior to the specialised AirSeal Xi port becoming available.

- 2- The Hugo RAS is approved for clinical use in Australia, i.e. its use is not limited to research settings, so ethics approval is not necessary.

Reviewer G

Thank you for submitting your manuscript on the use of the new robotic system for inguinal hernia repair. We find this approach promising and believe it holds significant potential.

However, to fully evaluate the efficacy and applicability of this technique, we recommend the following modifications:

Safety Procedures: Please describe in detail the safety procedures to be followed during inguinal hernia repair using the new robotic system. It is crucial to understand how patient safety is ensured, particularly in terms of potential risks and complications associated with the introduction of a new system.

Operator's Experience: The operator's previous experience with laparoscopic inguinal hernia repair, including the average operative time, should be explained. This information will provide context regarding their proficiency and how it may translate to the robotic system.

Experience in Other Robotic Surgeries: The team's experience with robotic surgery for other conditions should also be reported. This is valuable for understanding the learning curve and adaptability associated with the new robotic system.

Specific Robotic Hernia Repair Experience: Please detail your experience with robotic inguinal hernia repairs, including those performed with systems such as da Vinci, along with the operative times. This information is important to gauge the reliability of the robotic technique and the skill level of the surgical team.

Thank you for your comments:

- 1- Even though we present the 1st experience in Australia in general surgery with Hugo RAS, the system has been used in other jurisdictions, and other disciplines, with its technical safety established to a degree acceptable to the relevant Australian regulatory body.
- 2- The authors are proficient in minimally invasive inguinal hernia repair, having performed hundreds of laparoscopic and da Vinci robotic TAPP repairs.