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Surgical Training for bowel endometriosis: A new wet-lab model

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Conflict of interest :

Dr. Shabanov has nothing to disclose.
Dr. Jean-Marie Wenger has nothing to disclose.
Dr Jean Dubuisson has nothing to disclose.
Pr Patrick Dällenbach has nothing to disclose.
Dr Nicolas Buchs has nothing to disclose.
Dr Nicola Pluchino has nothing to disclose.

IRB

The IRB approval was not required for this video.

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Study objective: To demonstrate a new wet lab model for training in conservative bowel endometriosis surgery (shaving and discoid resection)

Design: Video demonstration

Materials and Methods:

- 1) Modeling deep infiltrating endometriosis using cryopreserved porcine rectum.
- 2) Conservative resection (shaving and discoid resection) using cold scissor and CO2 laser (free beam and fiber).
- 3) Discoid resection

Results: In this video we present a new training model for improving the surgical management of bowel endometriosis. After dissection of the serosa and muscular layers, a modified biological glue is injected into the porcine rectum in order to accurately simulate an infiltrating bowel endometriosis lesion.

Once dried, the simulated lesion can be resected with conventional laparoscopic instruments (cold scissors) or with more advanced techniques such as CO2 laser, free beam and fiber (Stortz and Lumenis). In case of bowel perforation during resection, this model enables realistic suturing.

Conclusion: This new and high realistic model allows the next generation of endometriosis surgeons to acquire adequate training to make bowel surgery safer and more effective.