



Robotic TAMIS for local excision of ultra-distal neoplasia

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Precision has always been a cornerstone of robotic surgery, with the idea being that if dissection is more exact, the improvement in operative quality will translate into superior clinical outcomes. The advantage of precision-based local excision of rectal neoplasia has been proven [1]; whether performed by transanal minimally invasive surgery (TAMIS) [2] or by transanal endoscopic microsurgery (TEM) [3] the outcome remains the same [4].

Introduced in 2011, robotic TAMIS was proposed as a technique which could be applied toward local excision of rectal neoplasia, and preliminary data confirm feasibility and acceptable outcomes [5, 6]. Such a natural orifice approach, utilizing robotics, likely represents a key target application for next-generation computer-enhanced surgical systems [7, 8].

In this video forum, the da Vinci Xi surgical system (Intuitive Surgical, Sunnyvale, CA, USA) in conjunction with TAMIS access is used as a platform to excise a rectal neoplasm which encroaches on the anterior anal verge. The technical challenges posed by ultra-distal access and exposure, as well as the general principles of TAMIS-based robotic local excision, are detailed.

Compliance with ethical standards

Conflict of interest Dr. S. Atallah reports consultancy (such as consulting fees and honoraria) from Medtronic Inc., Applied Medical, ConMed Inc, and Medrobotics. Dr. S. Larach holds stock options with Applied Medical Inc. R. Shuck has no disclosures to report.

Ethical approval This research was performed in accordance with the ethical standards of the institutional and/or national research committee

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and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained in accordance with the standards set forth by hospital regulations.

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