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Optimal Dissection for Transanal Total Mesorectal Excision Using Modified CO2 Insufflation and Smoke Extraction

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Abstract

Aim: The new approach of transanal total mesorectal excision is technically challenging and demands a stable field of dissection with optimal view of anatomical landmarks. We aimed to describe and demonstrate a modification of both the insufflation of carbon dioxide and smoke evacuation, in order to optimize dissection.

Method: The comparison of standard insufflation to an AirSeal platform demonstrates a clear difference. This is shown in the accompanying video-recordings.

Results: A more stable pneumorectum and better smoke evacuation as well as more convenient and precise dissection were achieved with the AirSeal platform.

Conclusion: Using the technique outlined, the operating surgeon is able to perform the surgical dissection in a stable operating environment with increased visibility compared to the standard approach.