



Intersphincteric Resection Is the Optimal Procedure for Very Low Rectal Cancer: Techniques, Morbidity, Oncologic and Functional Outcomes

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Abdominoperineal resection (APR) since miles 1908 for distal rectal cancer associated with high local recurrence rates, permanent colostomy has a poor quality of life, now indicated only in External sphincter infiltration. Total mesorectal excision (TME) in 1982 by Heald consider gold standard of surgical technique for rectal cancer which results in improved survival and reduced local recurrence

Mulsow, J. and Winter, D.C. (2011) Sphincter Preservation for Distal Rectal Cancer—A Goal Worth Achieving at All Costs? World Journal of Gastroenterology , 17, 855-861



*Neoadjuvant chemoradiotherapy
down-sizing of tumour and down-
staging of disease reduces local
recurrence by up to 50%,
facilitating sphincter sparing
surgery*

*Benjamin, D. and Ceelen, W. (2015) Oncological and Functional Outcome of
Intersphincteric Resection and Coloanal Anastomosis for Very Low Rectal Cancer.
University Ghent, Belgium*



- *Circumferential margin involvement (CRM) involvement is a strong predictor of local recurrence, survival rates. A distal margin of a 1 cm DRM is adequate*

Bernstein, T.E., et al . (2012) What Is a Safe Distal Resection Margin in Rectal Cancer Patients Treated by Low Anterior Resection without Preoperative Radiotherapy?

Colorectal Disease , 14, e48-e55.



- *Rudolf Schiessel developed the intersphincteric resection (ISR) followed by hand-sewn coloanal anastomosis technique in 1994, on this basis, an embryonic plane between the viscera and the surrounding skeletal muscles. It was reported to be safe in terms of leakage and mortality. ISR is defined as the ultimate anal preservation surgery by both abdominal and anal approaches which consist of TME and excision of the internal anal sphincter*

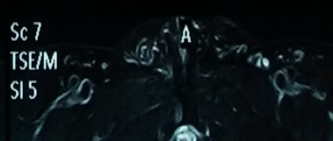
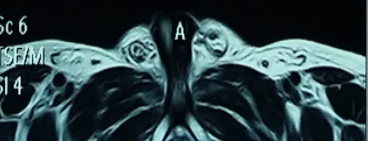
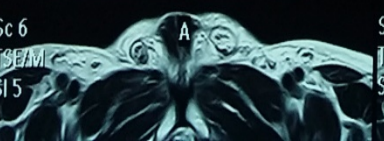
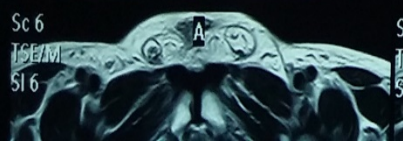
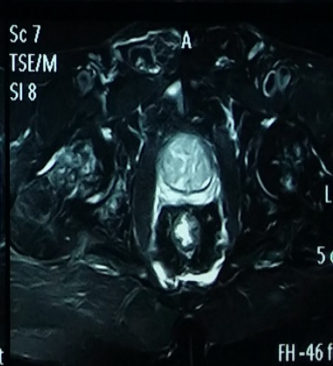
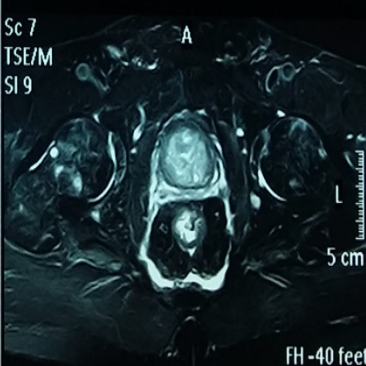
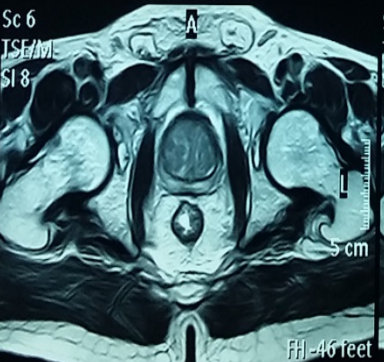
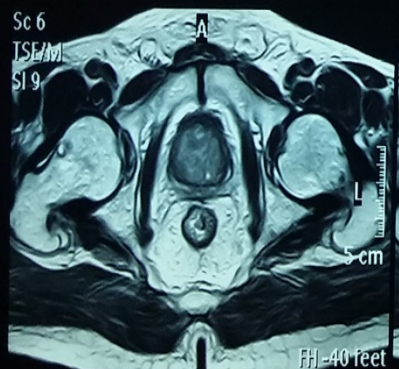
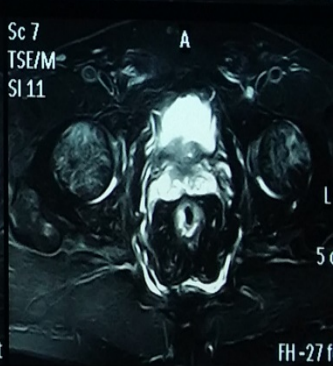
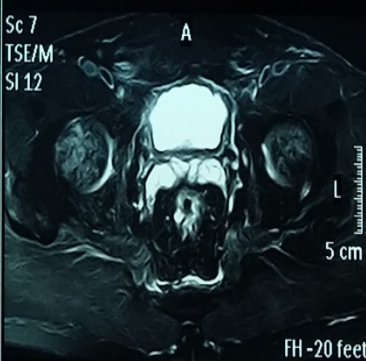
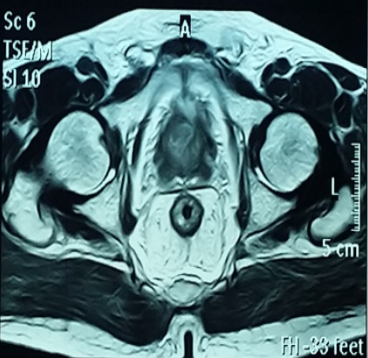
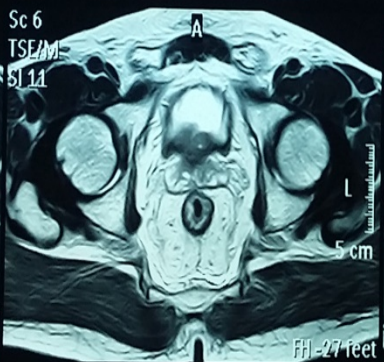
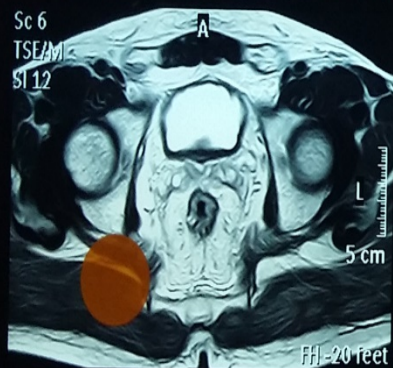
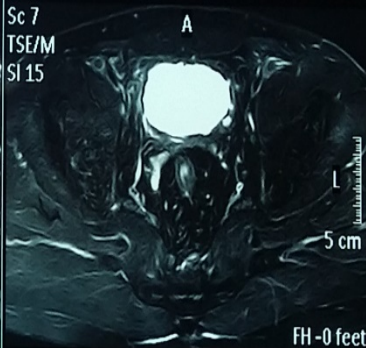
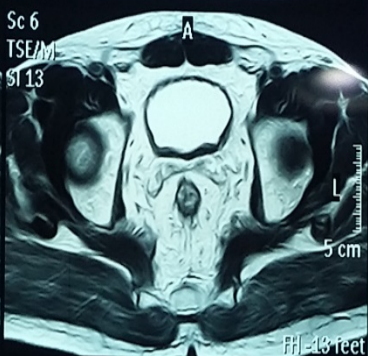
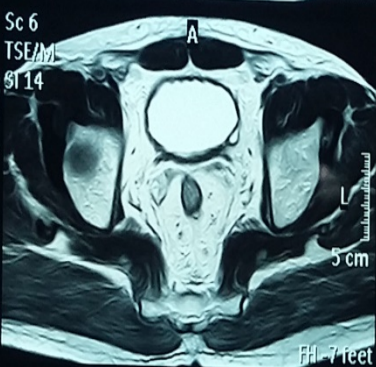
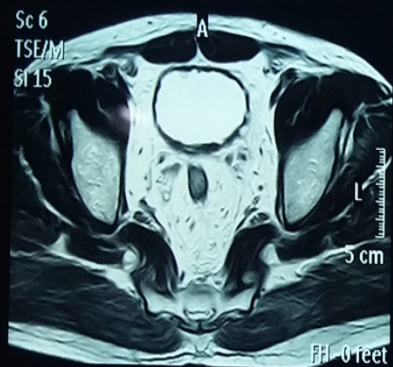
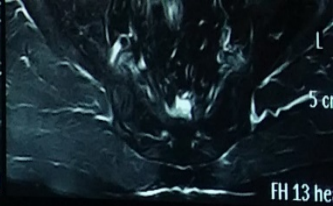
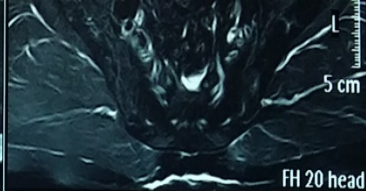
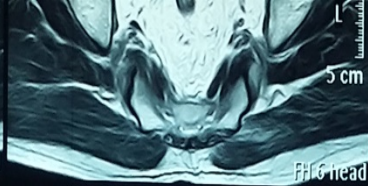
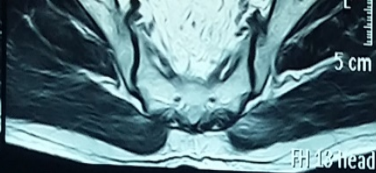


- *Saito et al . reported no differences in the overall survivals and the disease-free survivals between the ISR and the APR groups. There are three types of ISR, a neorectum reservoir allow early preservation of function*

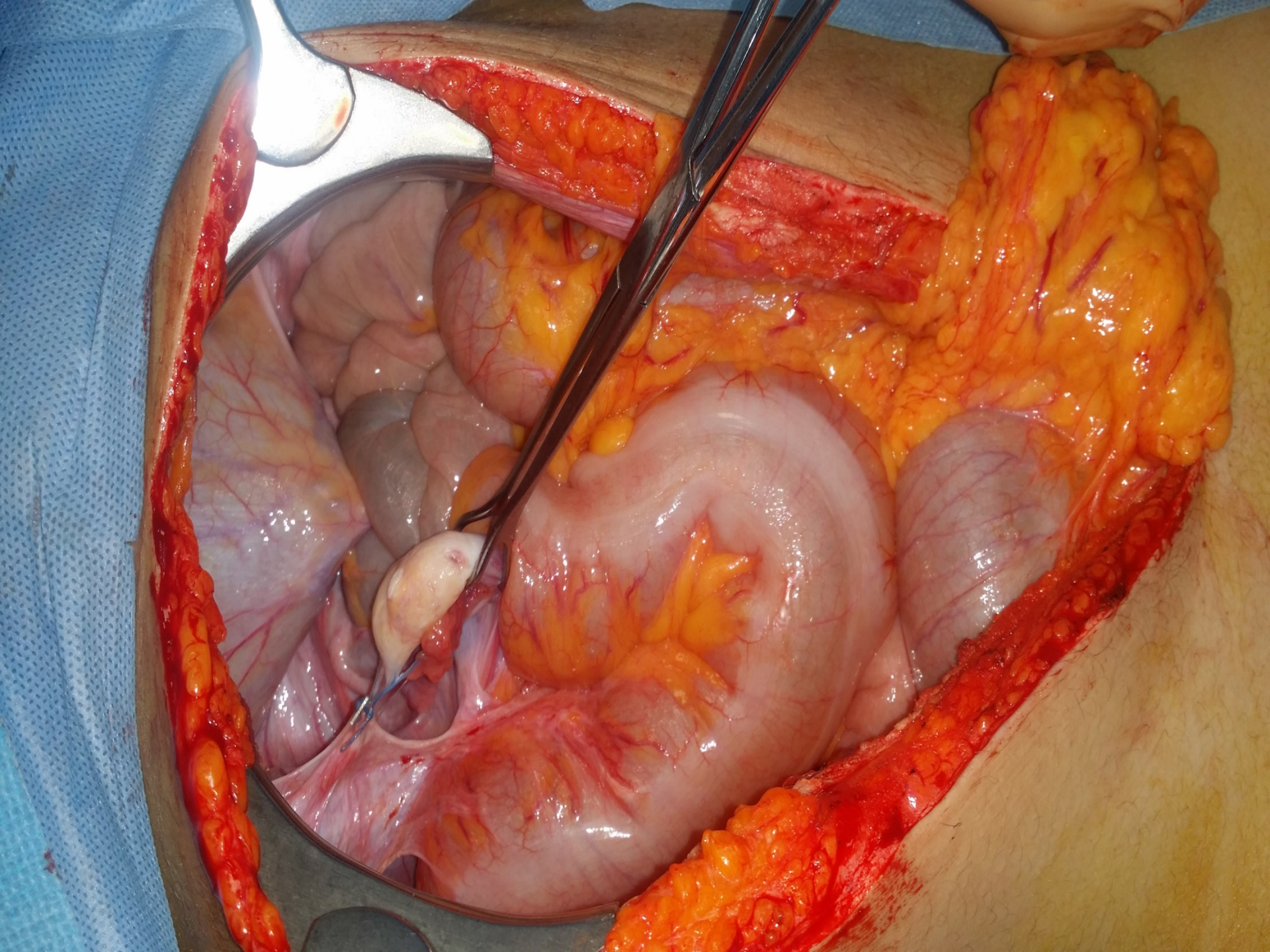
Krishnamurty, M.D. and Wise, P.E. (2016) Importance of Surgical Margins in Rectal Cancer. Journal of Surgical Oncology , 113, 323-332.

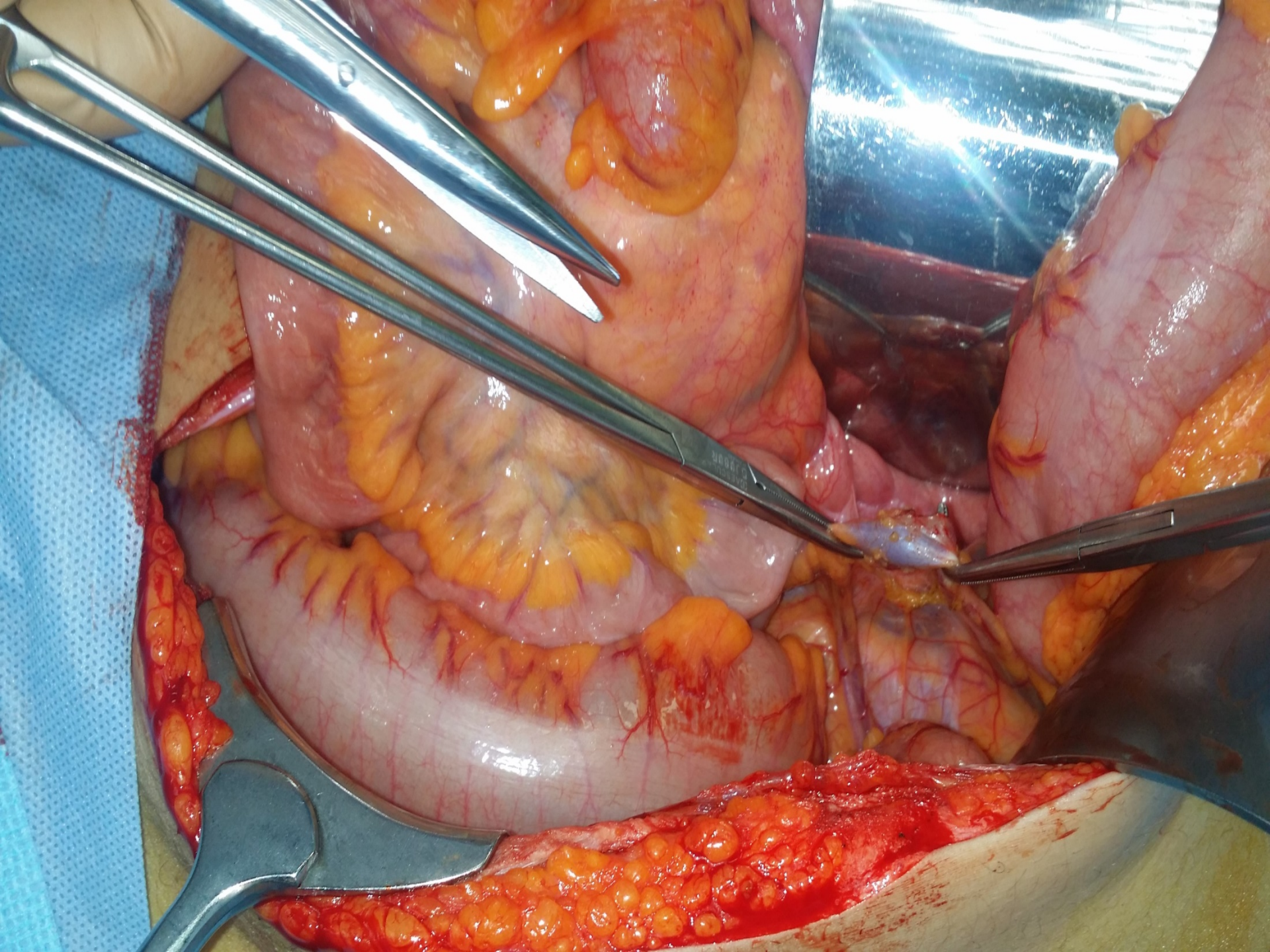


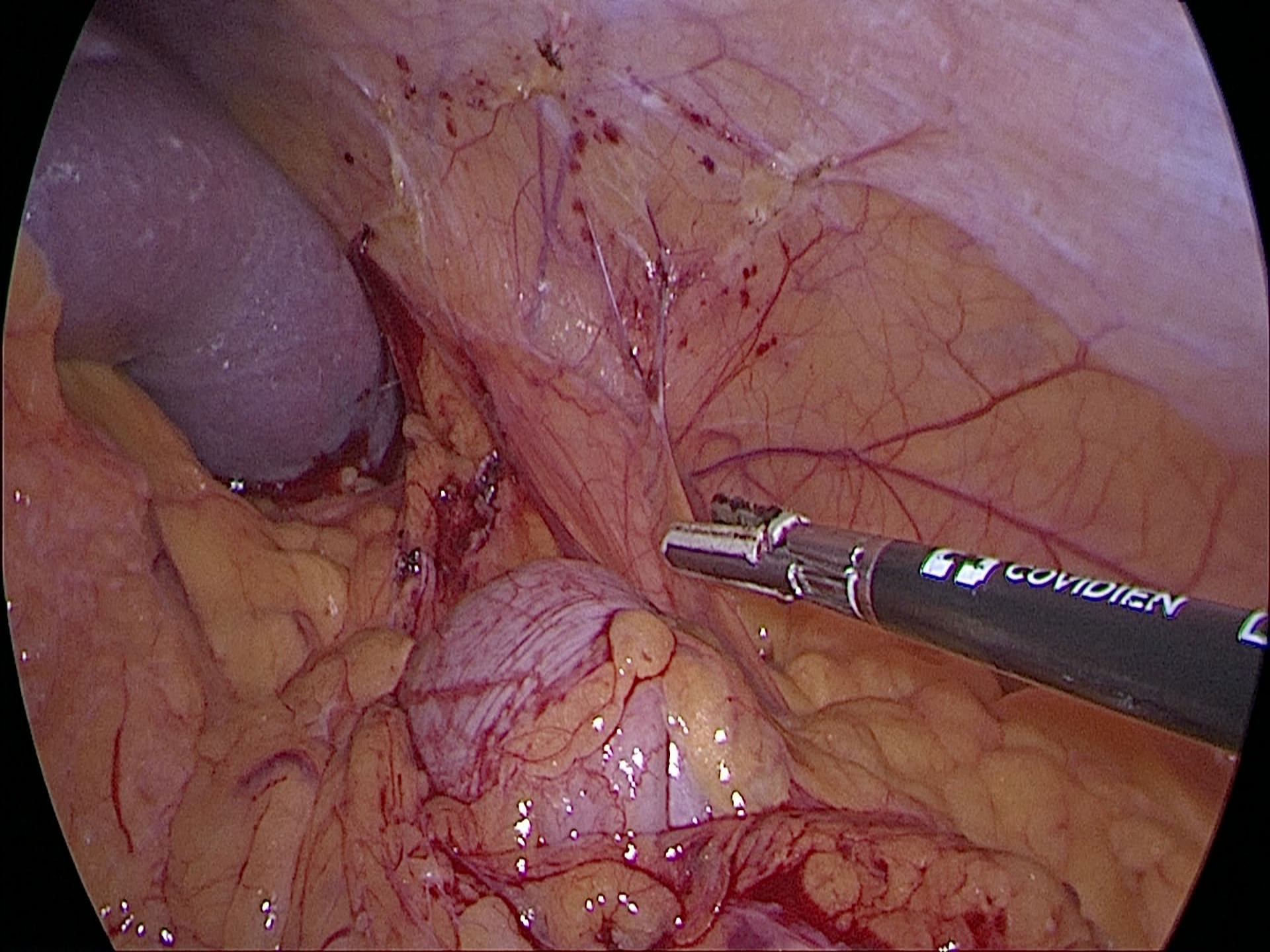
- *Magnetic resonance imaging predicting tumour stage, circumferential resection status, detailed relation between tumour and surrounding anal sphincter complex Assessment of response is to neoadjuvant treatment*



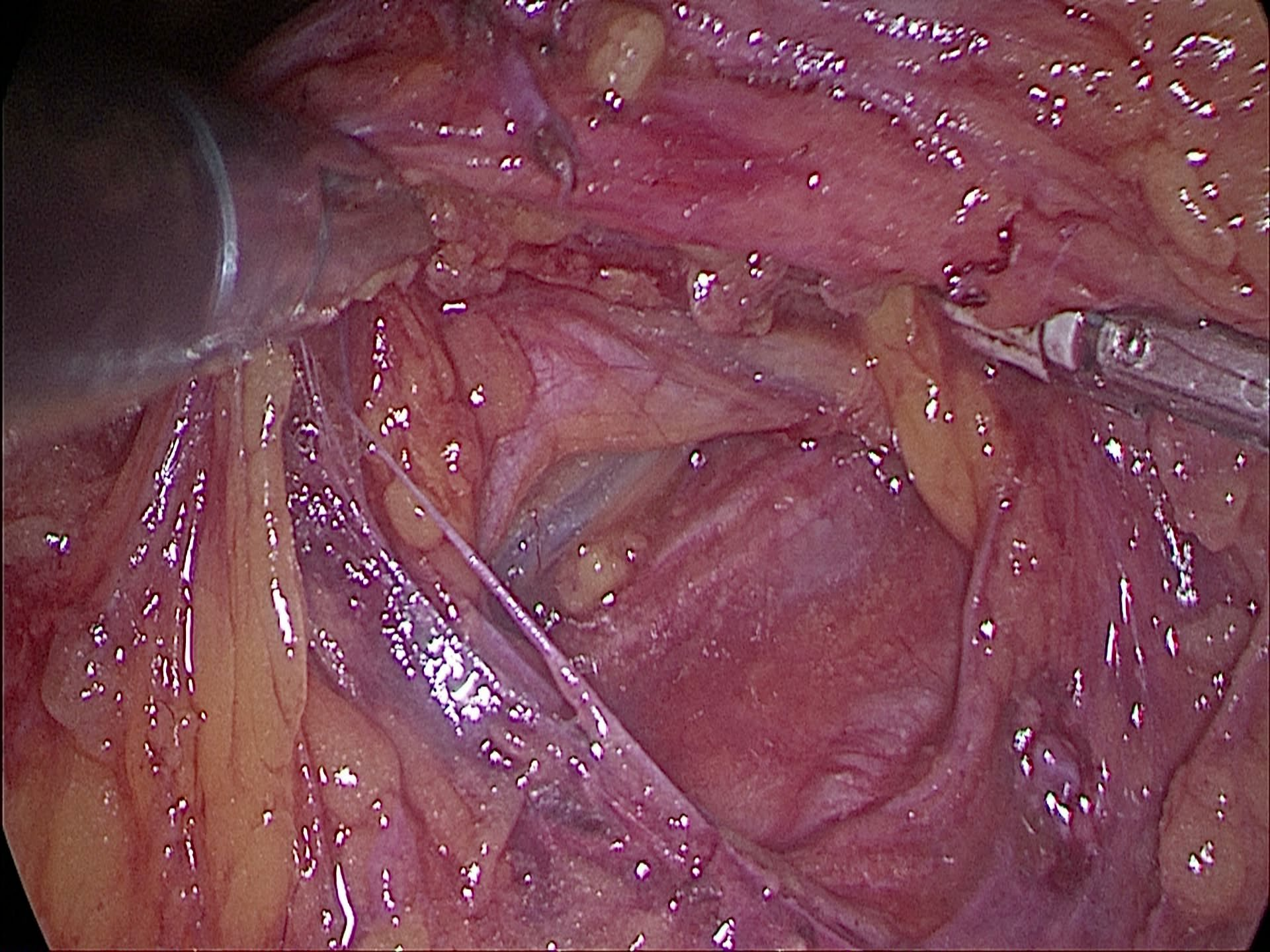


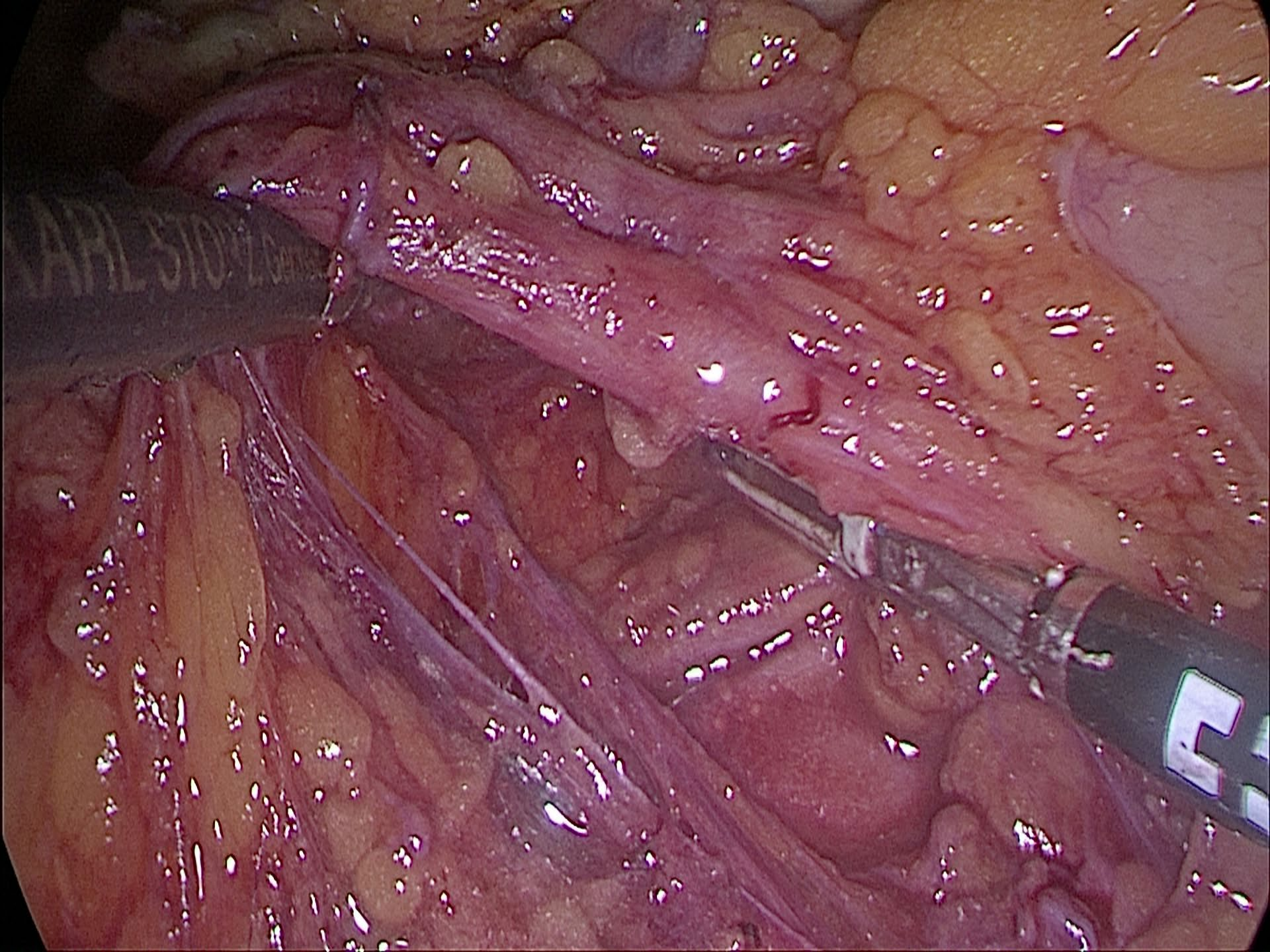




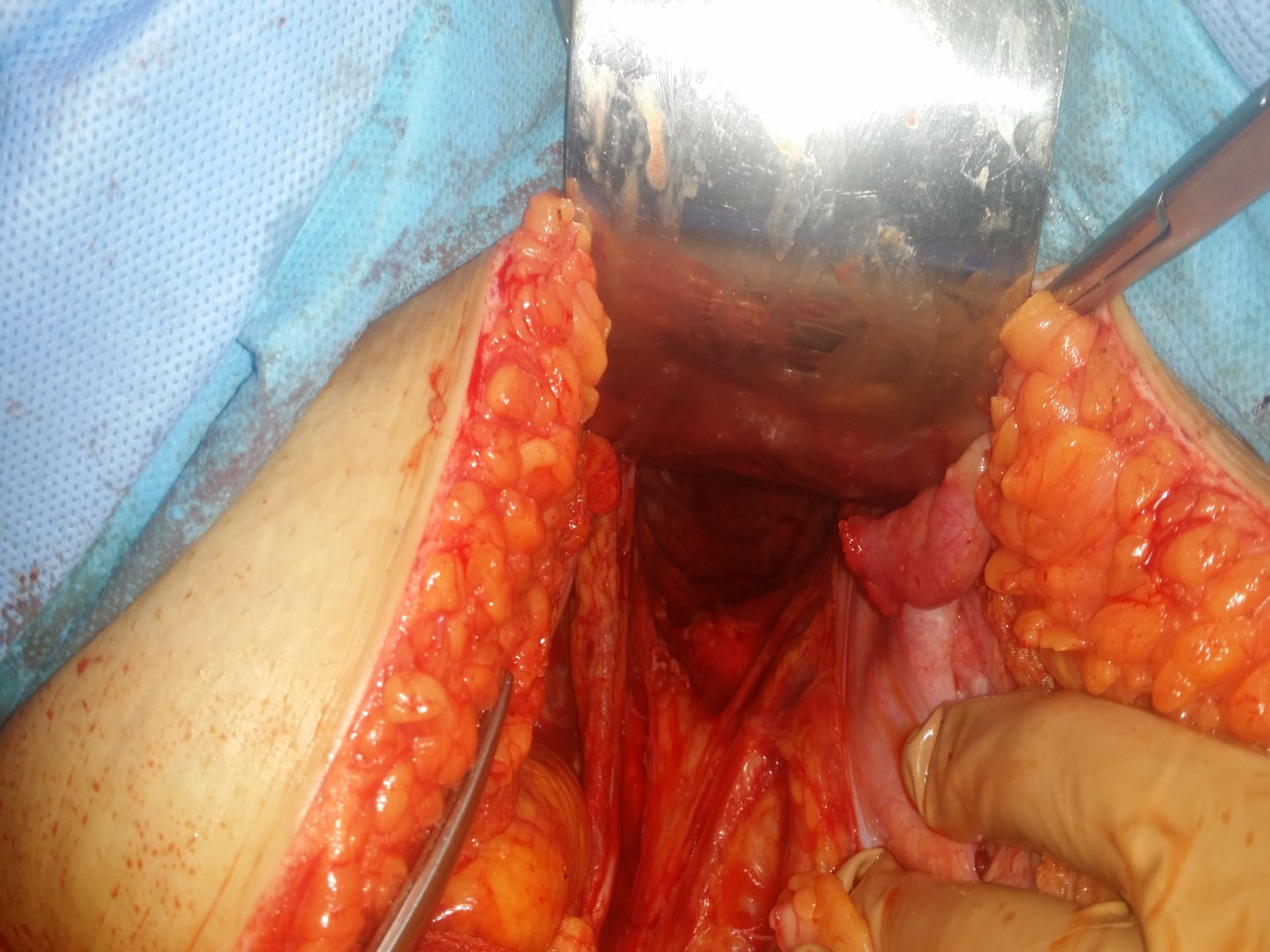




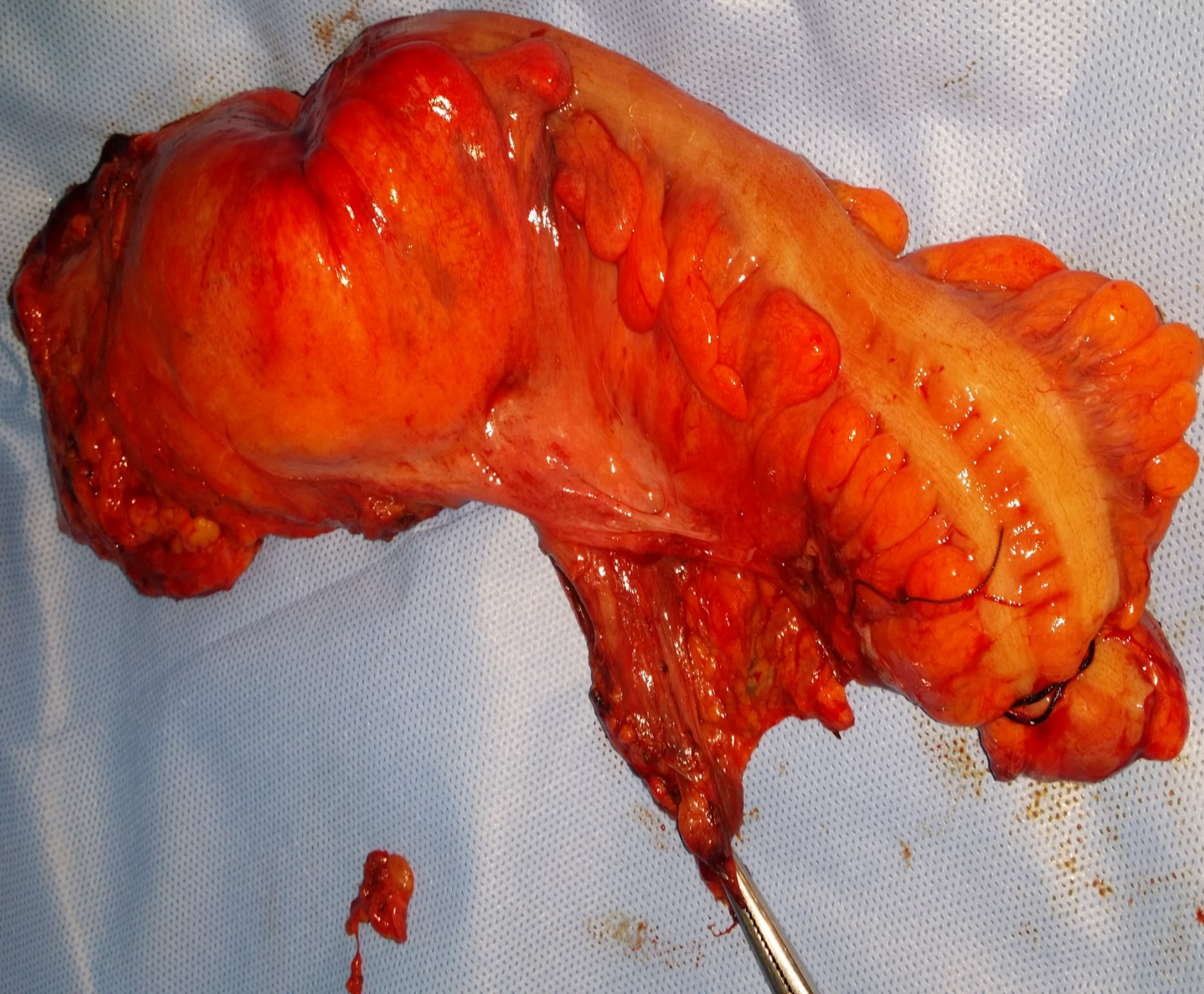




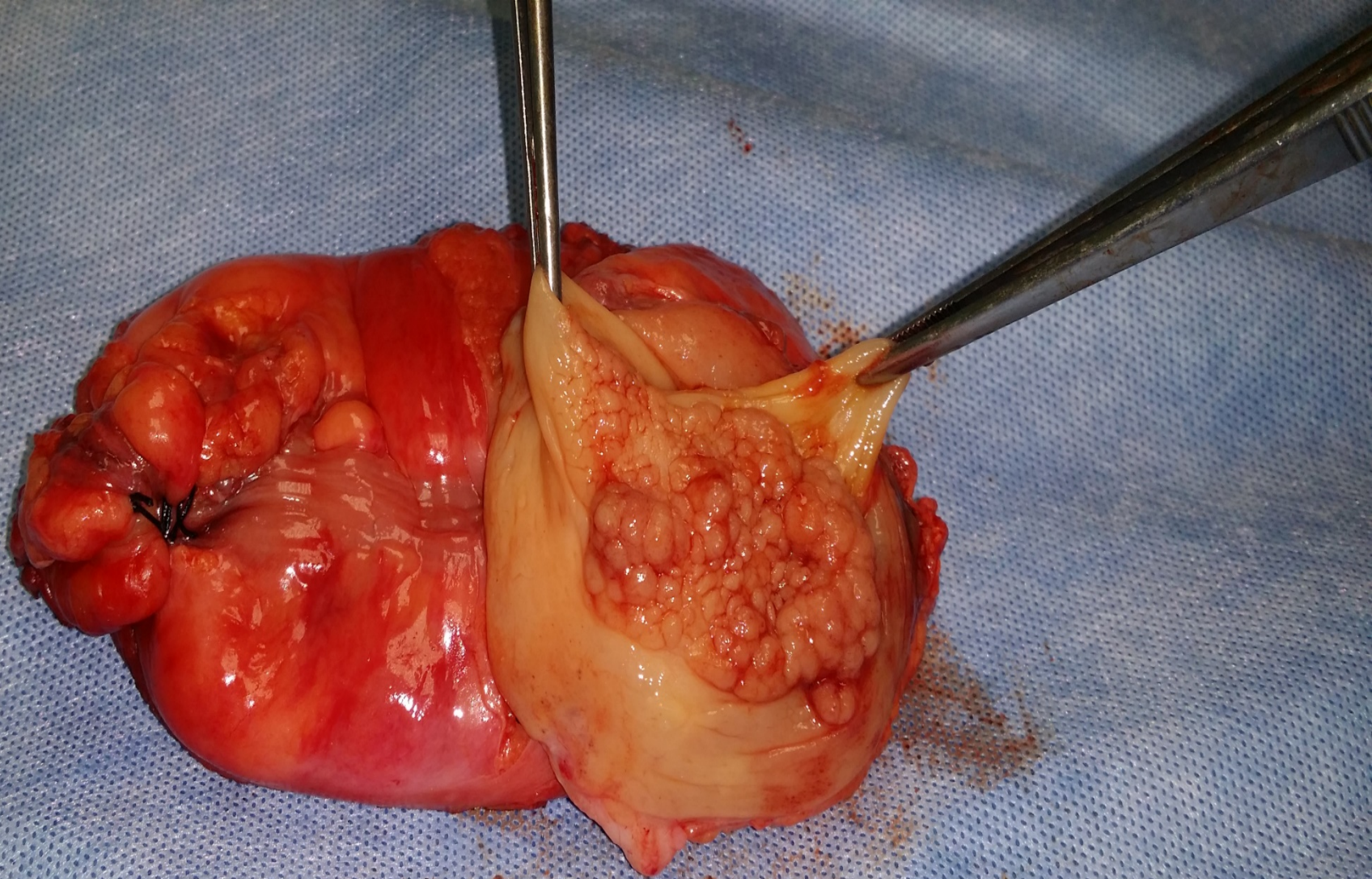


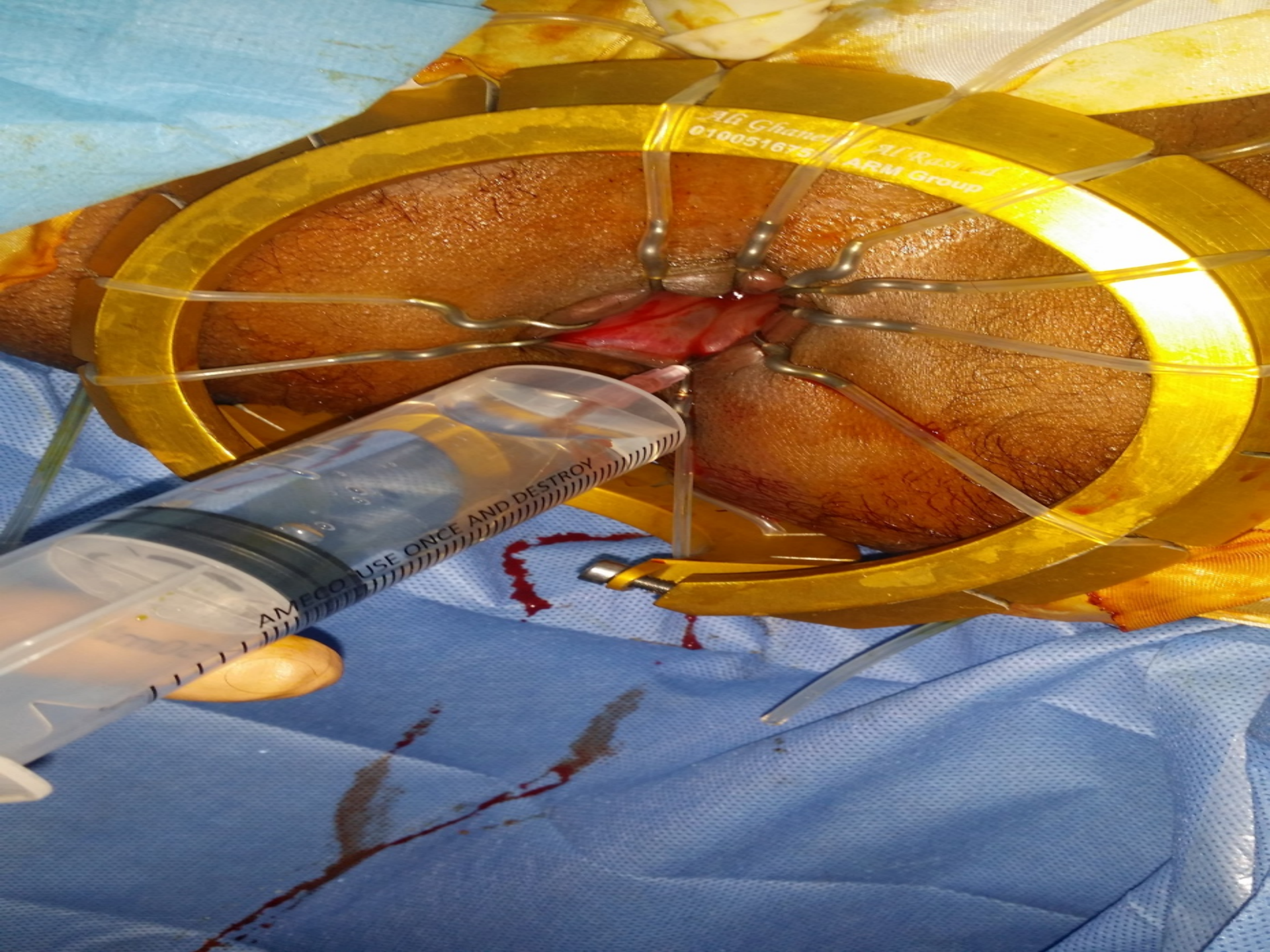


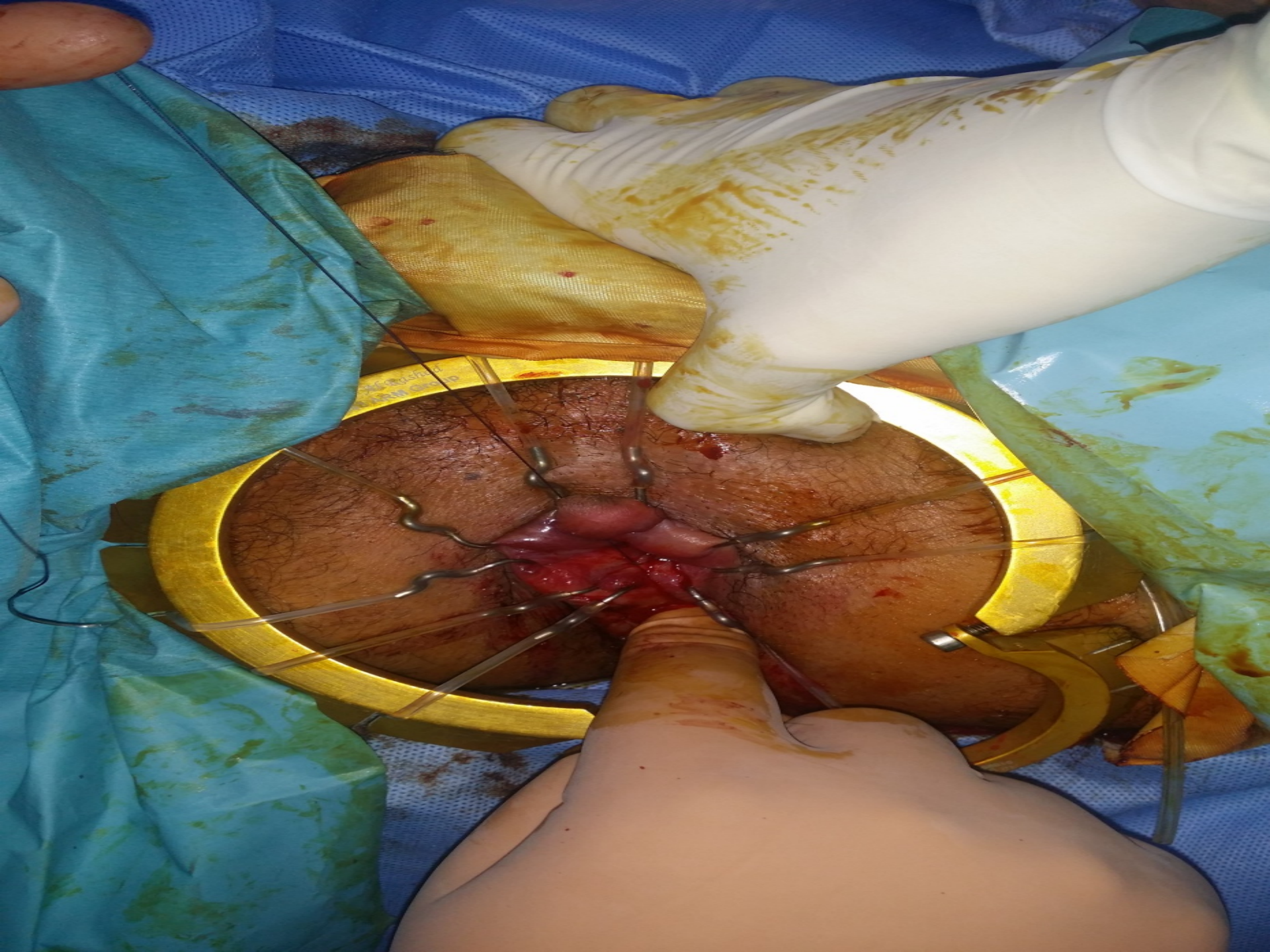




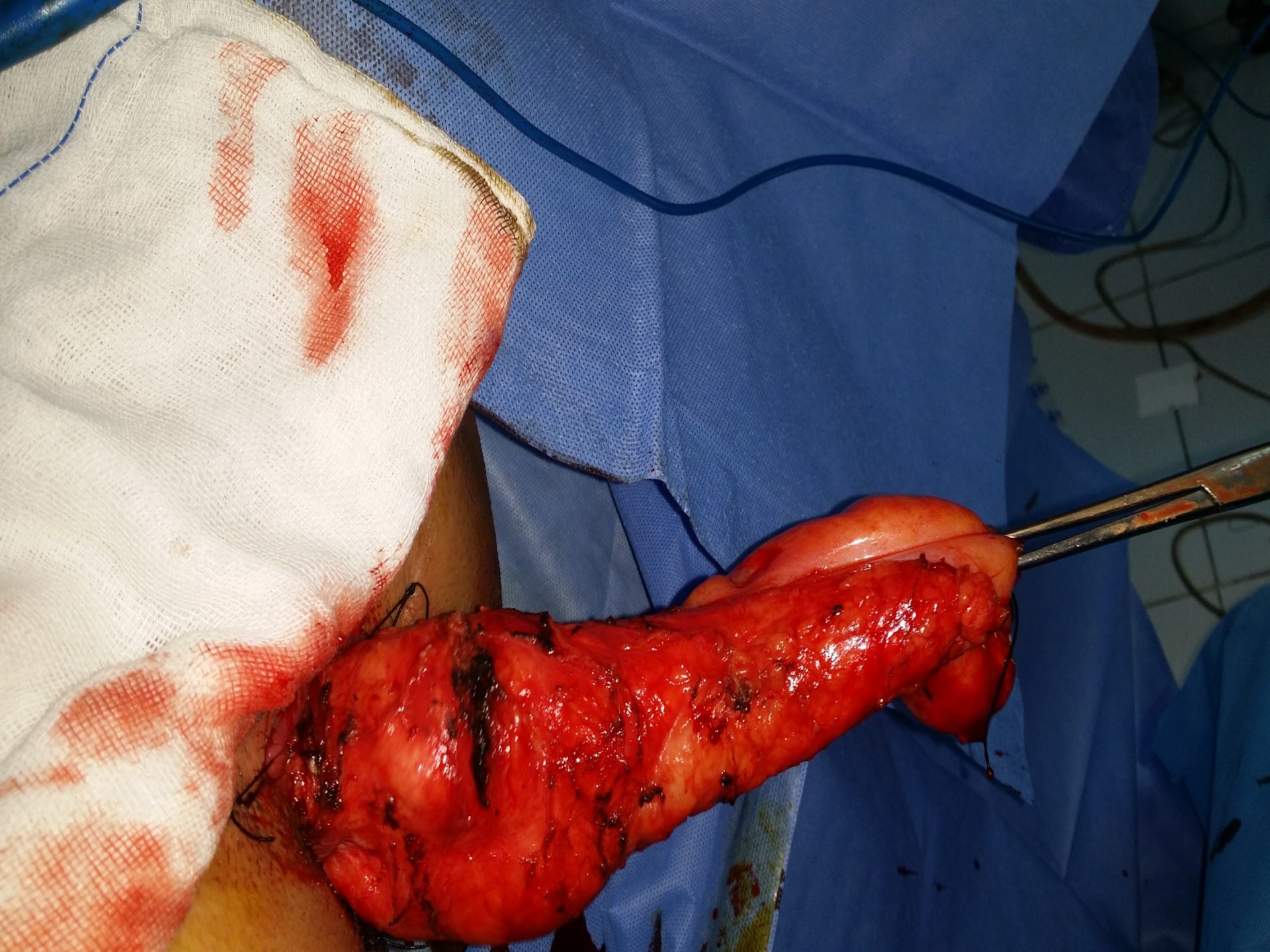




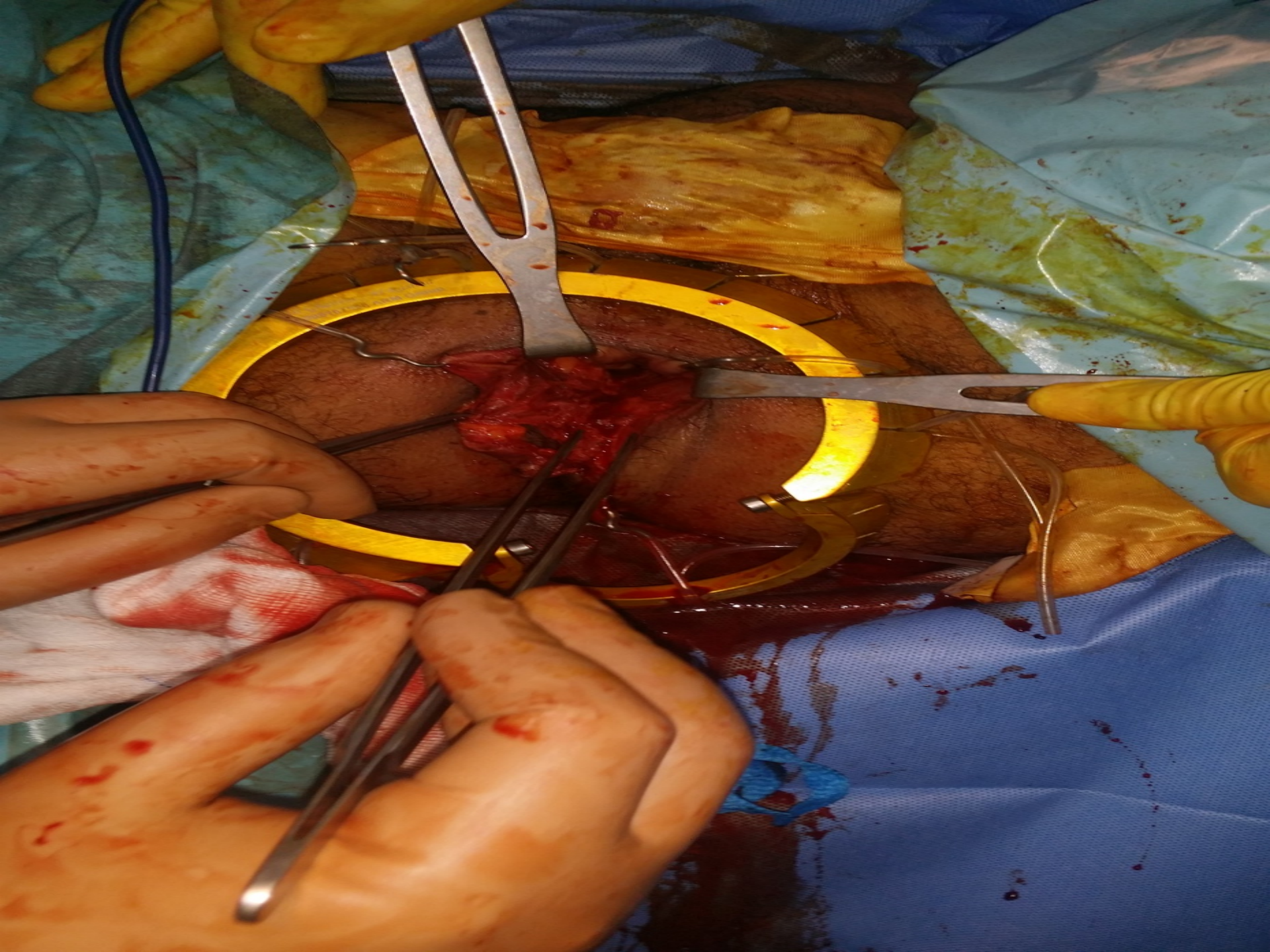




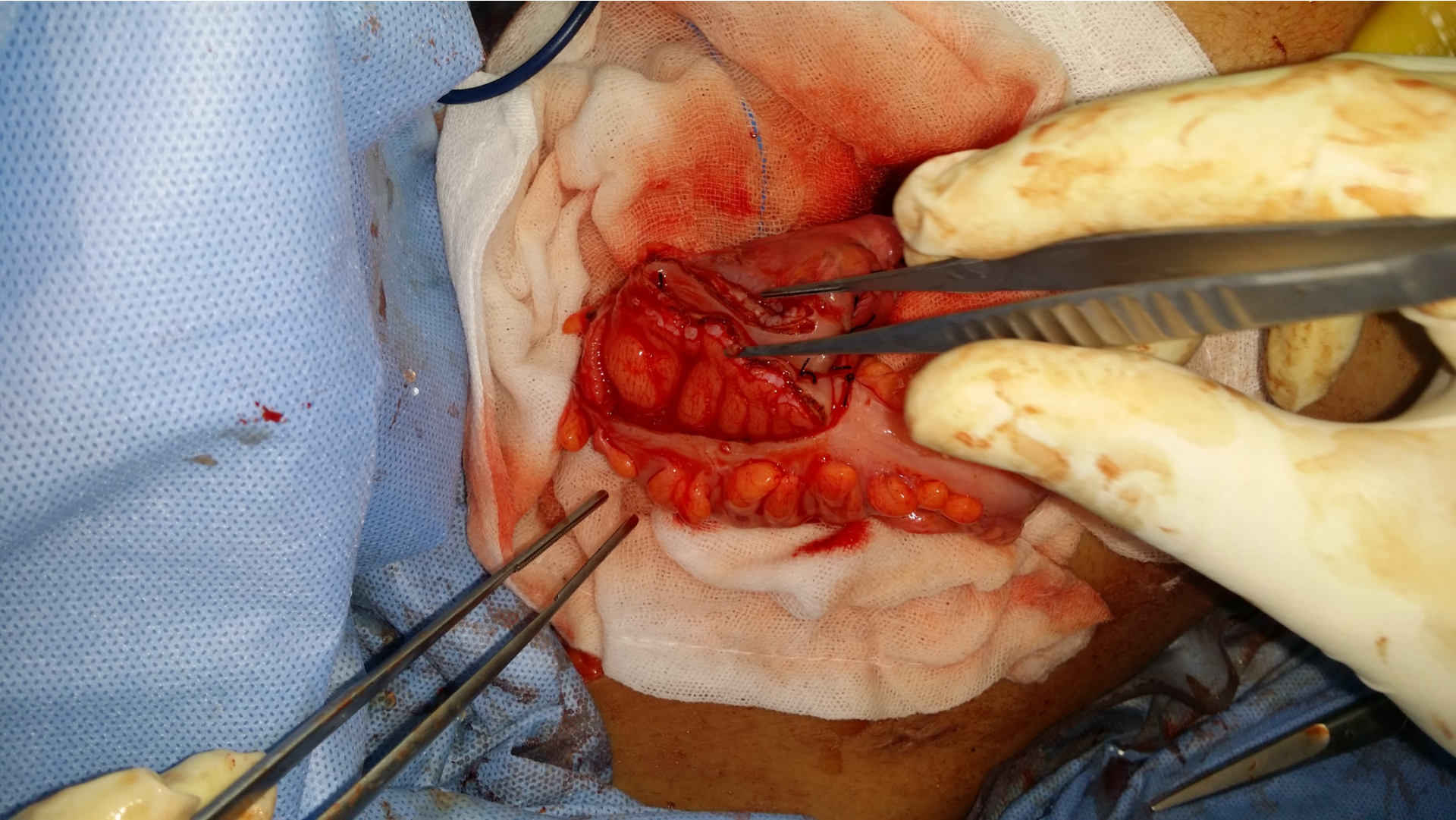


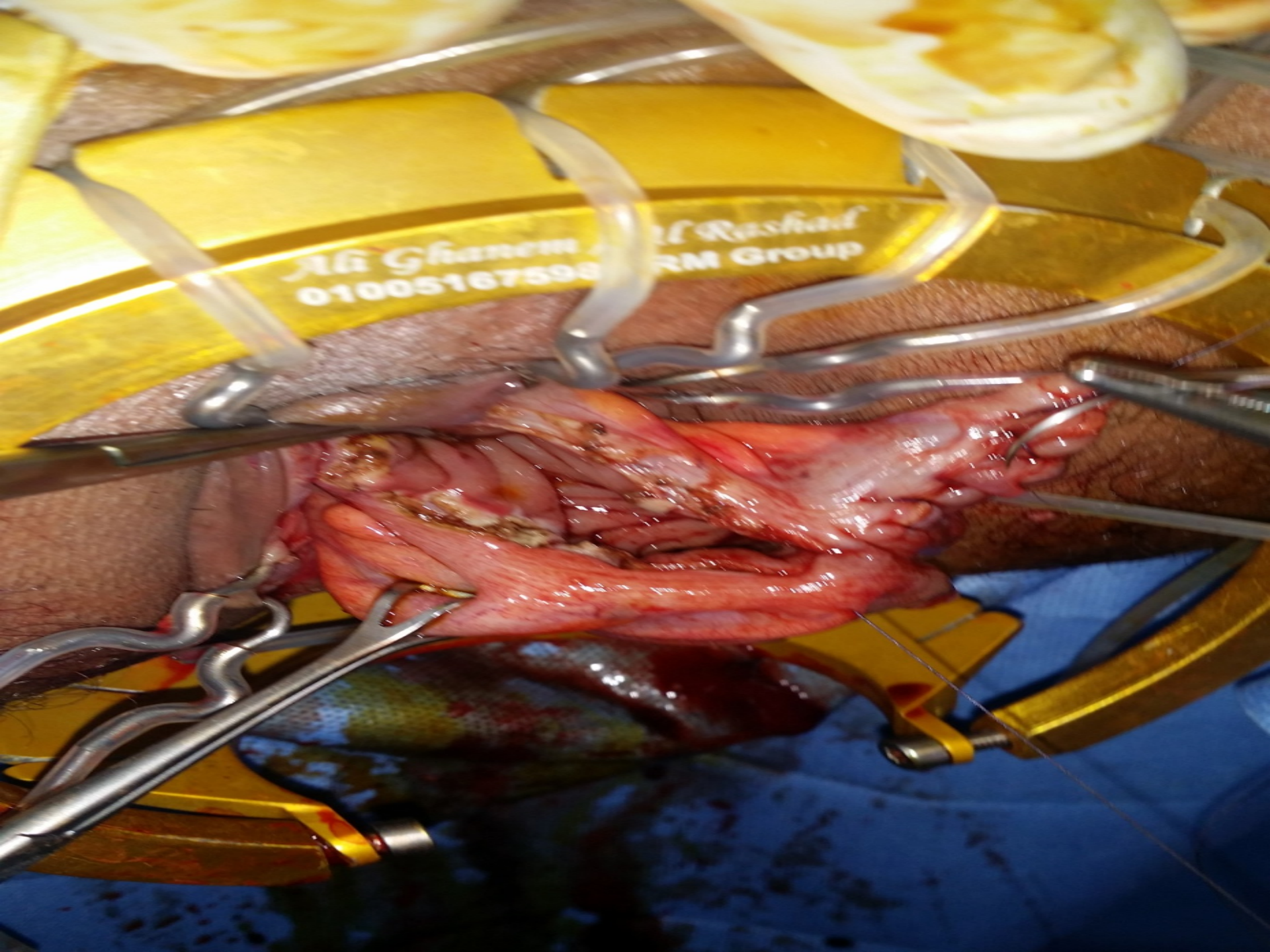


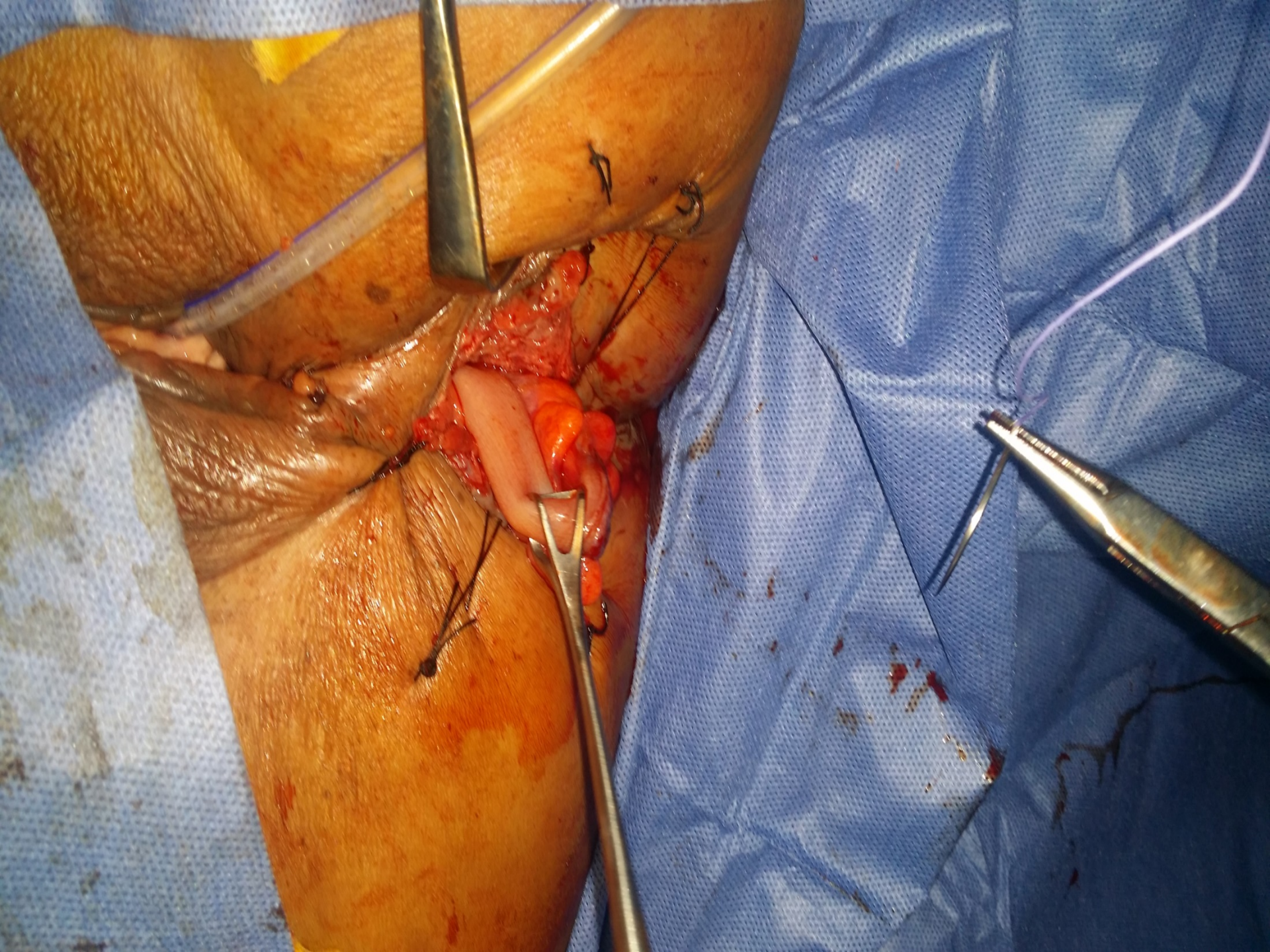












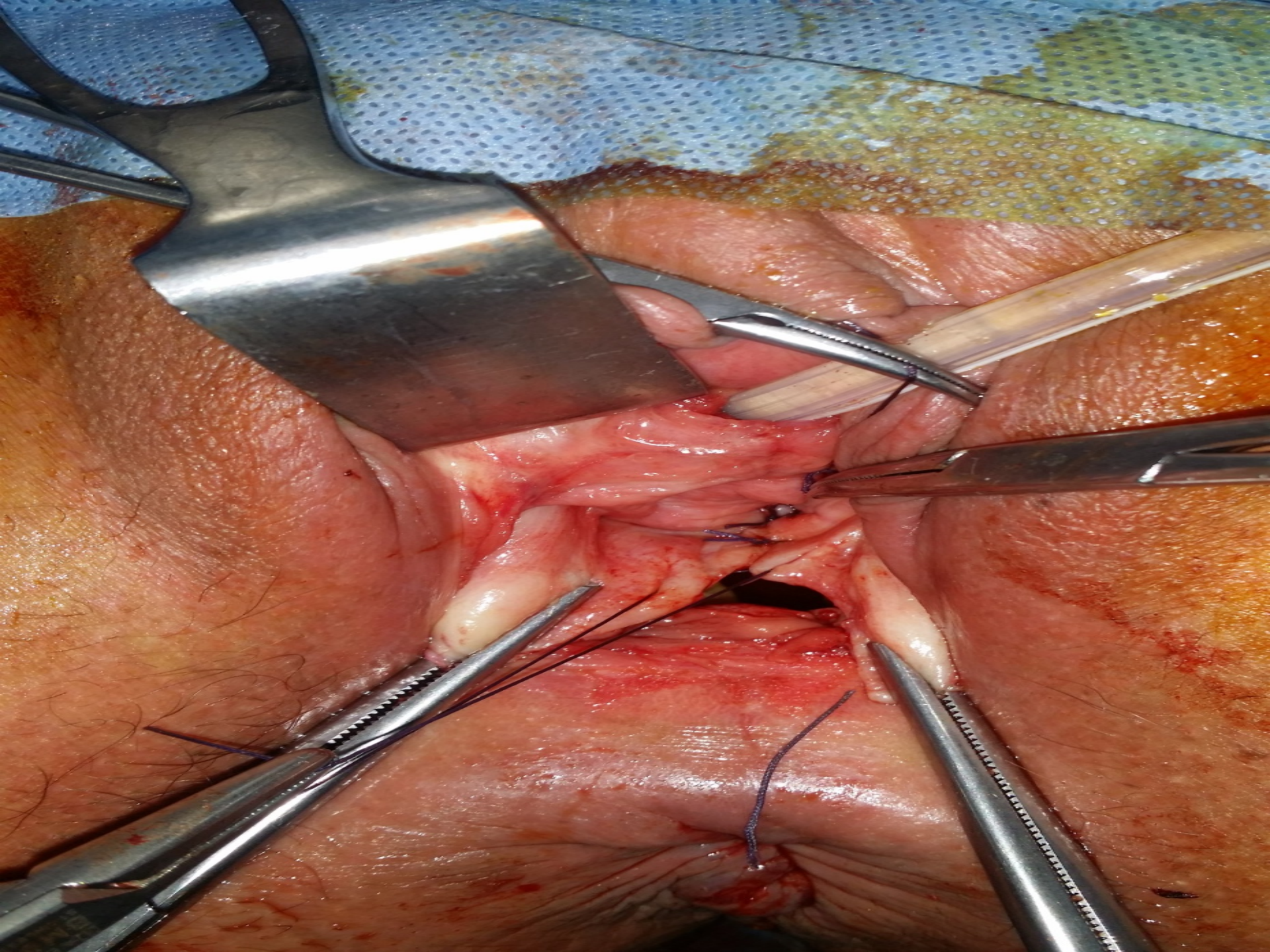


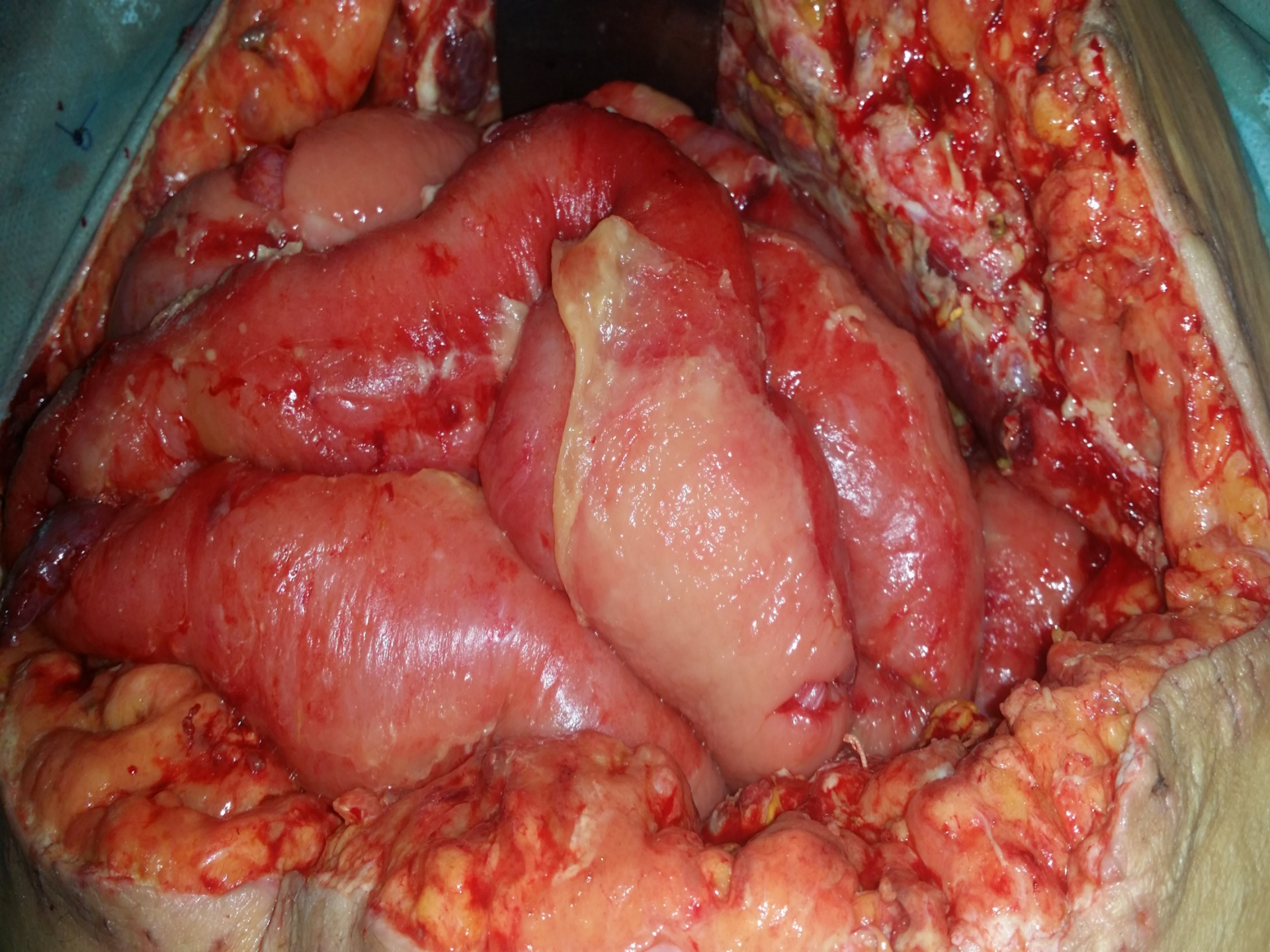


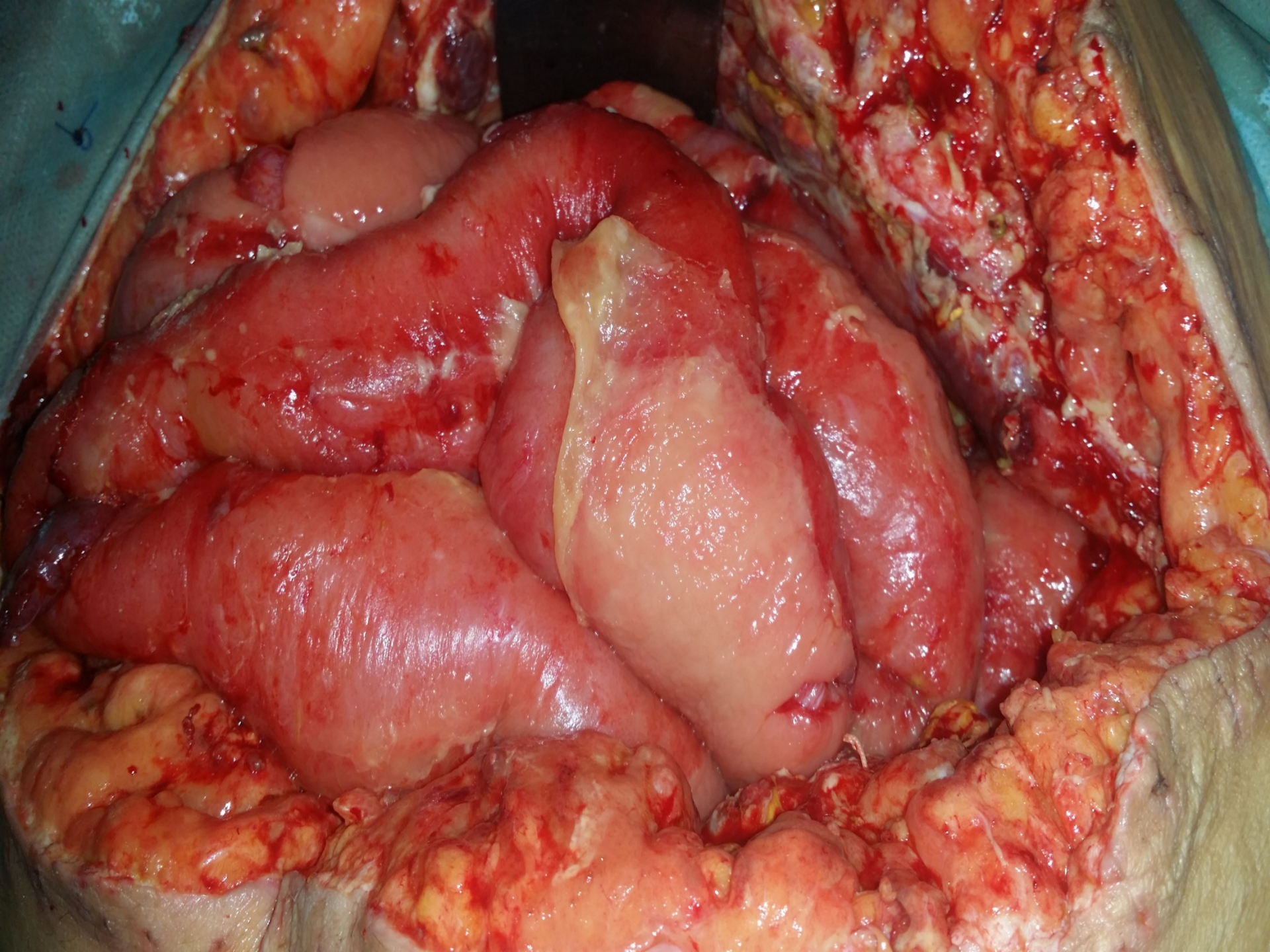


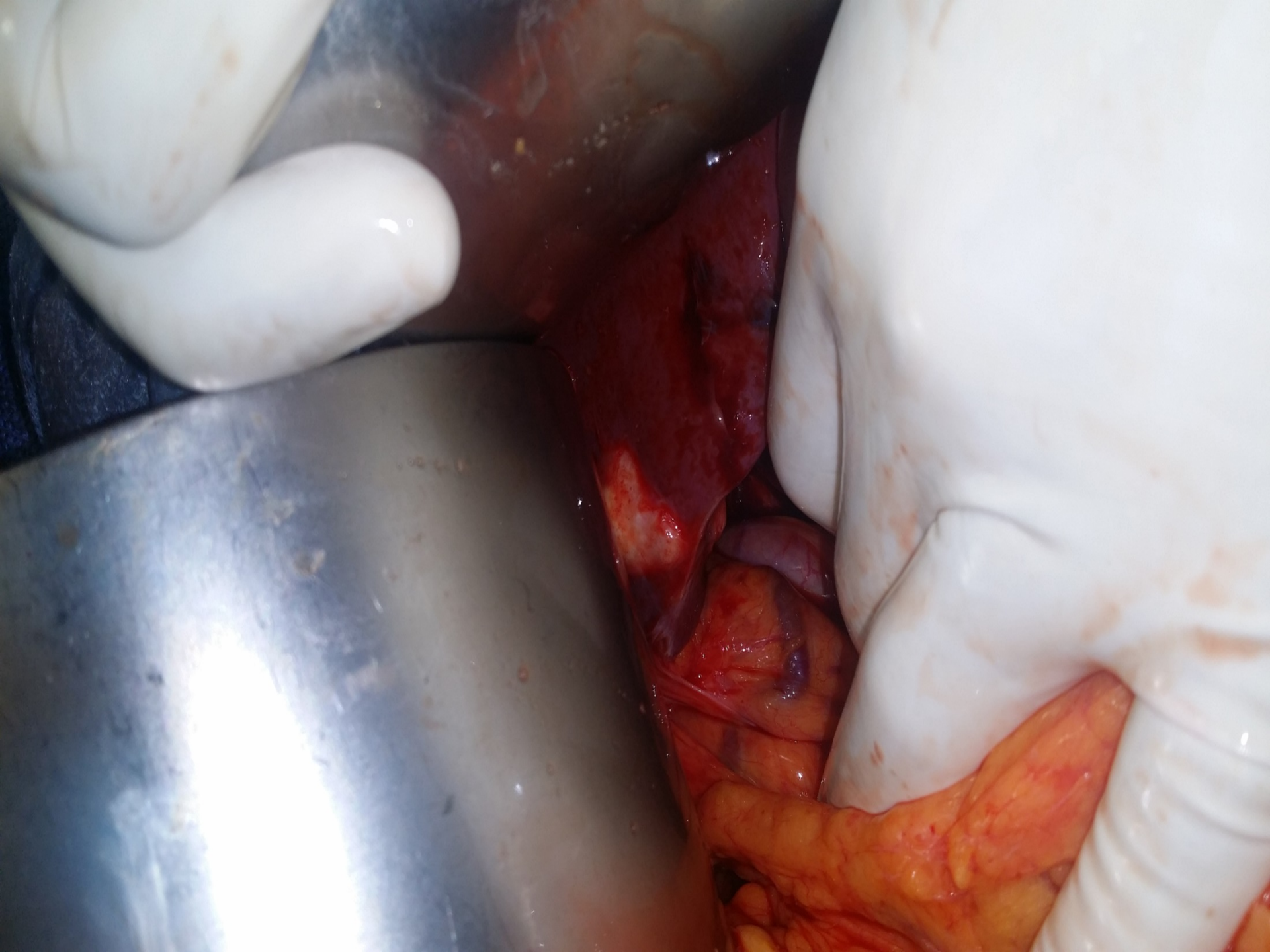




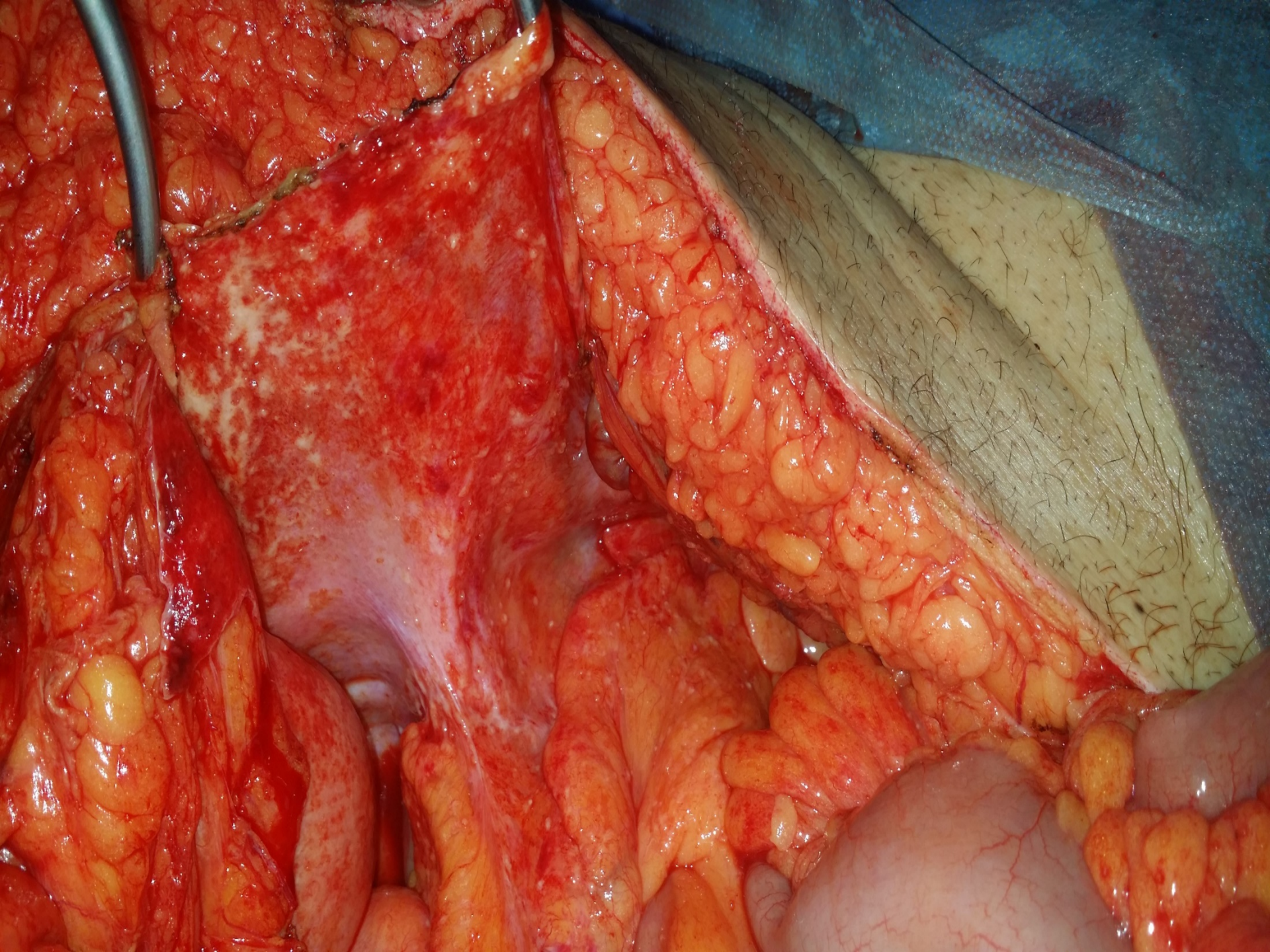












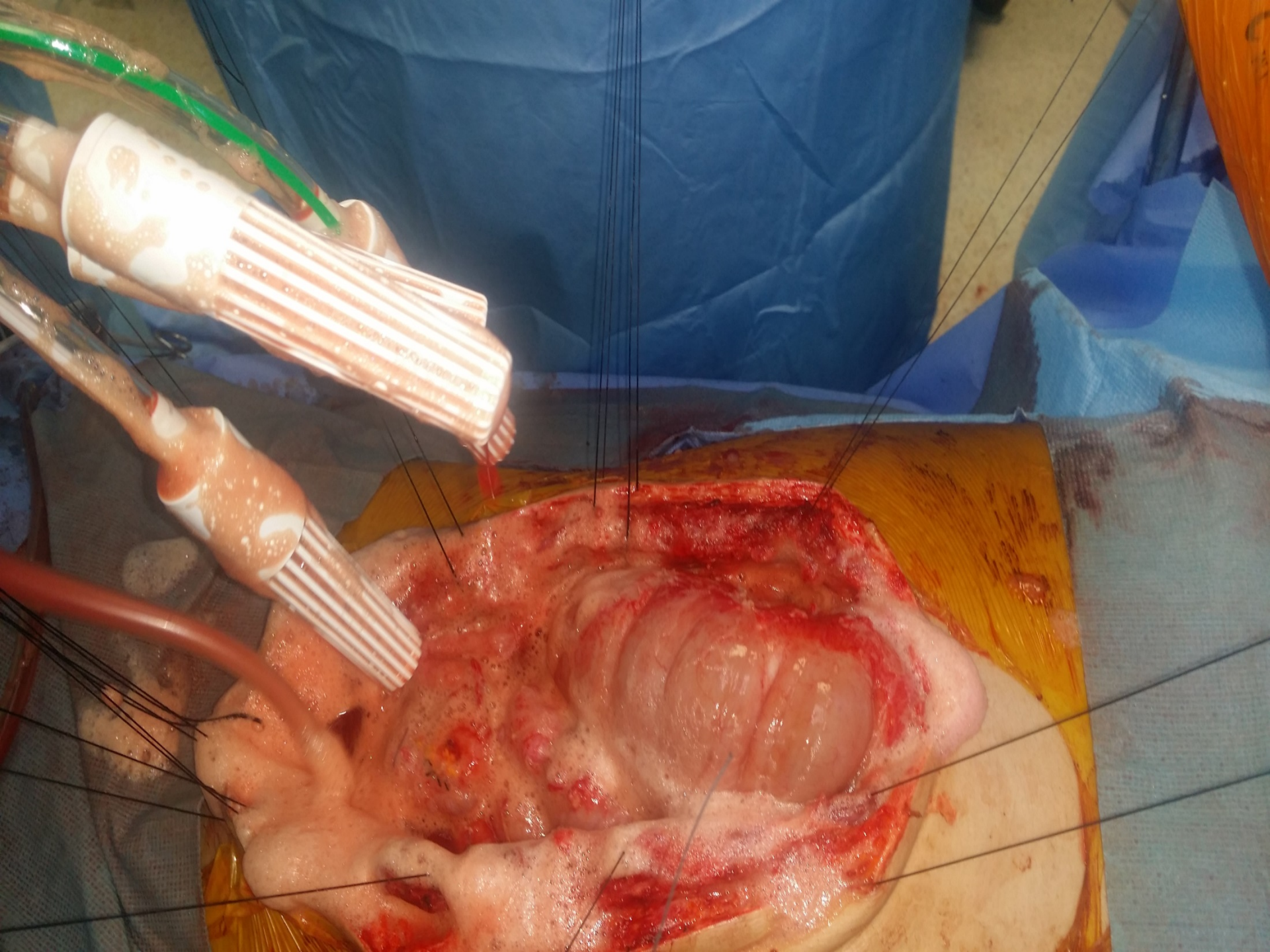
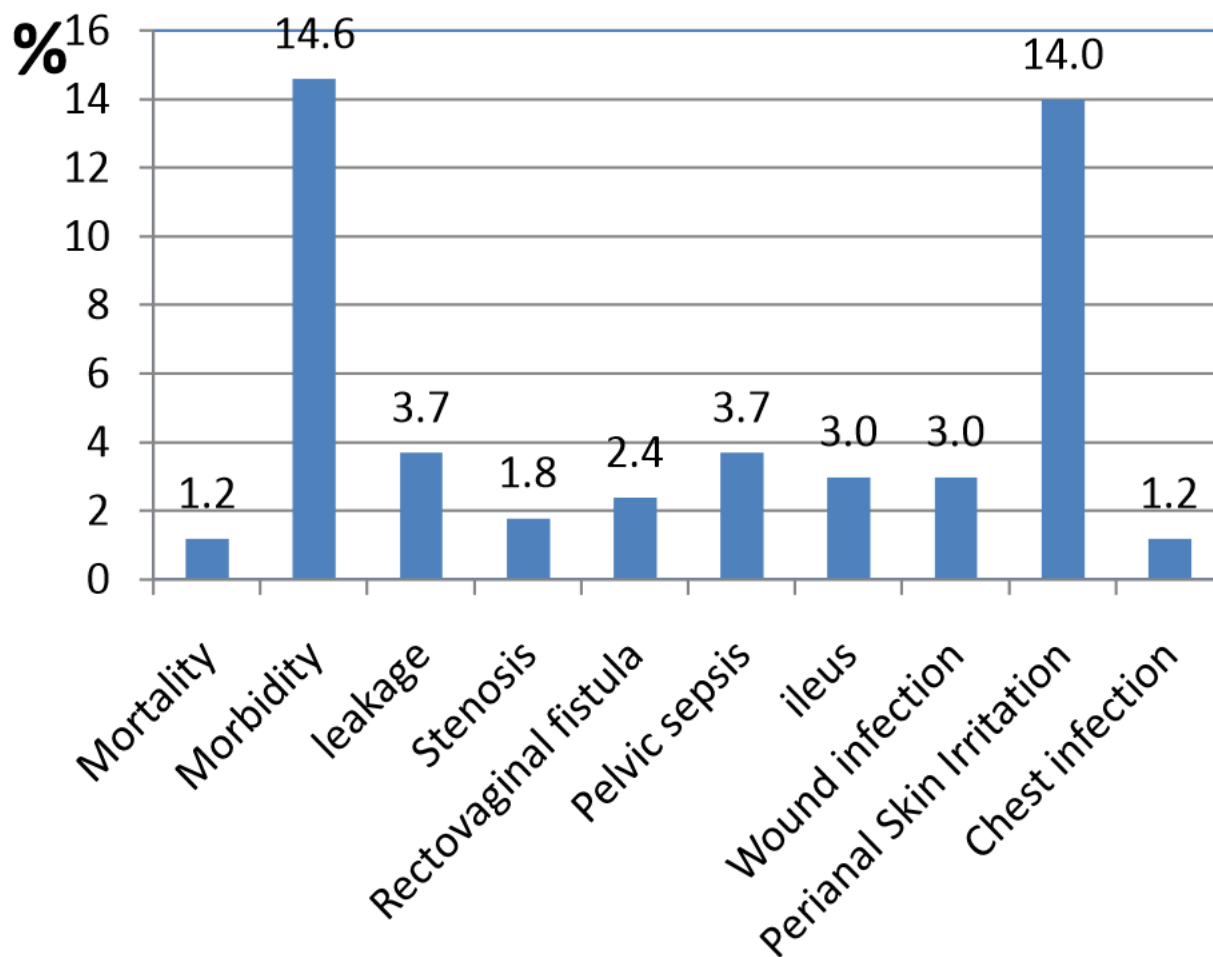


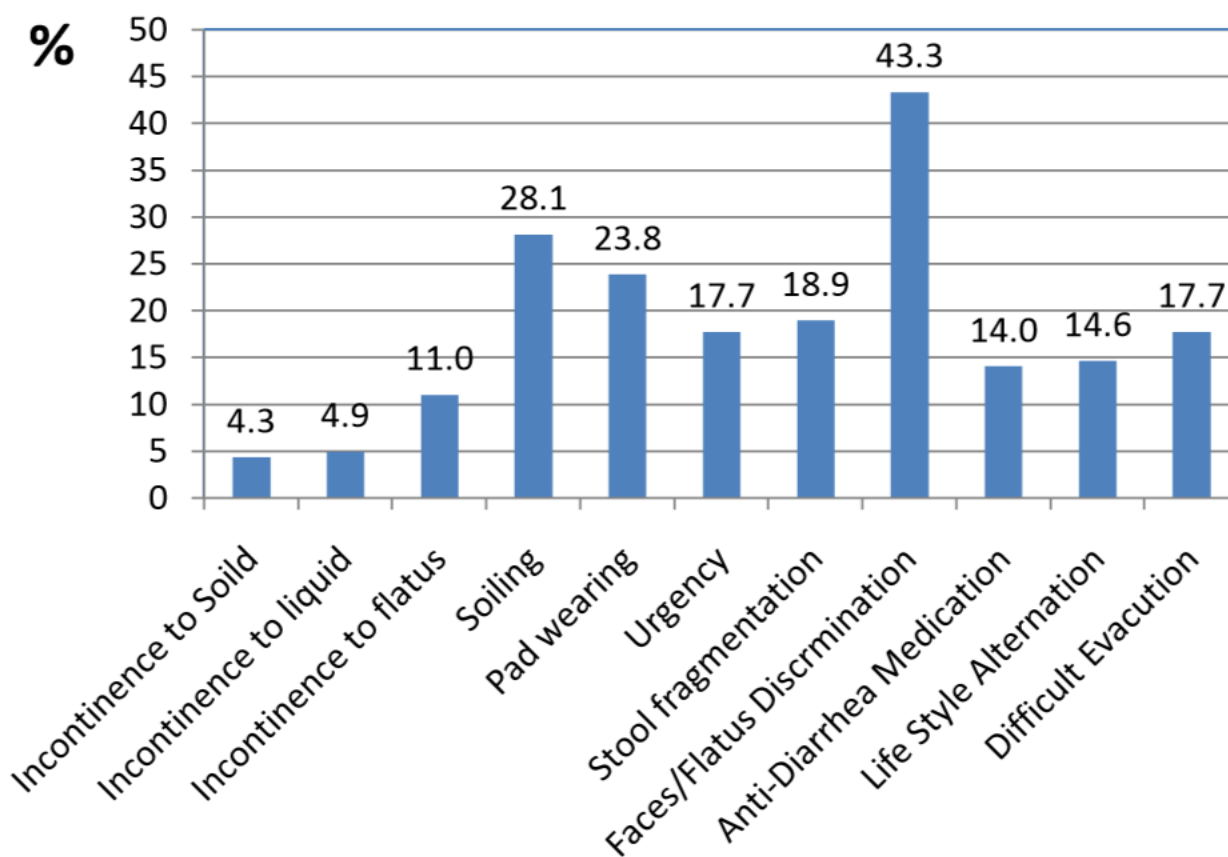


Table 1. Sociodemographic and clinical characteristics of the patients.

Characteristic	Result
Gender (M:F)	92 M:72 F
Age:Mean (Range)	54.5 years (21 - 88)
Mean Distance from AV	4.1 cm (2.9 - 6 cm)
Neoadjuvant RTH	147 cases (89.6%)
Adjuvant Chemotherapy	115 cases (70.1%)
Median Follow-Up Time	48 months (21 - 120)

M = male, F = female, AV = anal verge, RTH = radiotherapy.







Conclusion

Intersphincteric resection (ISR) is a feasible, effective, safe and valuable procedure with acceptable oncologic and functional outcomes for sphincter saving approach in selected patients with distal rectal carcinomas