Proctectomia endoscópica transanal con “Glove-Port” en animal de experimentación

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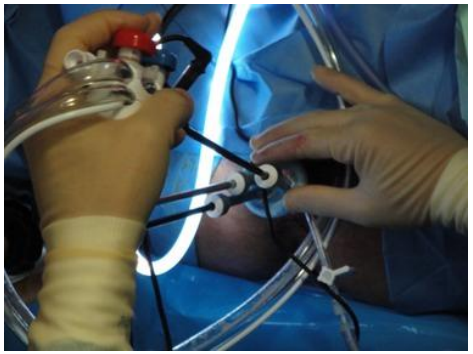

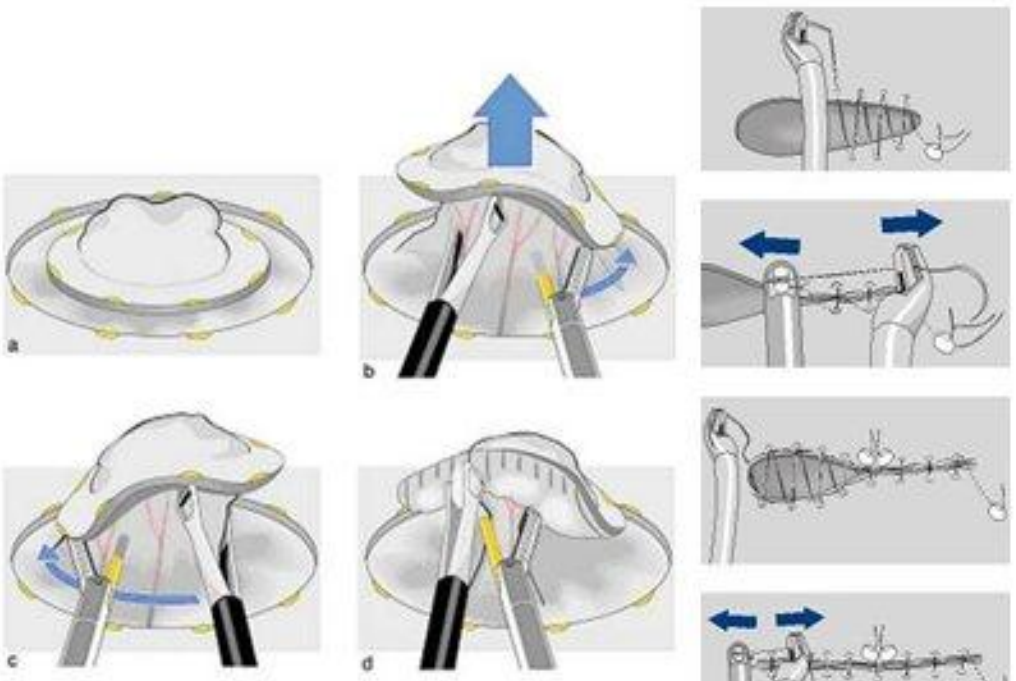
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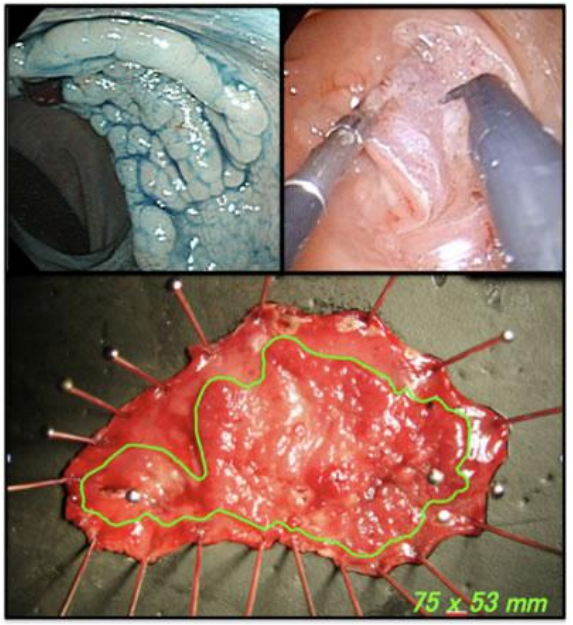
75 x 53 mm

The Glove TEM Port

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3. Department of Colorectal Surgery, Beaumont Hospital, Dublin, Ireland

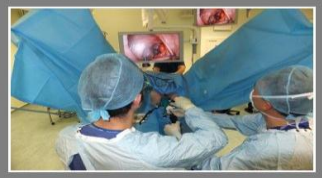
BACKGROUND

- The role of transanal endoscopic microsurgery (TEM) in the treatment of rectal tumours is evolving
- The cost and complex learning curve limit the widespread use of TEM
- Single port laparoscopic tools and principles are transferable to transanal work
- Here we describe our clinical experience with this new cost-effective technique

METHODS

Set-up of the glove TEM port

- Between October 2010 and January 2011, all eligible patients were given the option to participate in our pilot study.
- The glove port is constructed using a circular anal dilator (CAD), wound retractor and surgical glove.
- Standard laparoscopic trocar sleeves and straight rigid instruments are inserted and utilised via the port.



RESULTS

Table 1: Tumour characteristics

Case	Tumour location/ Position	Distance from anal verge (cm)	Tumour surface (cm2)	Preoperative diagnosis	Previous treatment
1	Anterior / Prone	3	0.3	Malignant	TAR (R1)
2	Anterior / Prone	4	0.3	Benign	EMR & TAR
3	Posterior / Lloyd Davis	9	1.3	Malignant	/
4	Posterior / Lloyd Davis	2	100	Benign	/
5	Posterior / Lloyd Davis	5	72	Benign	/
6	Left lateral / Lloyd Davis	8	12.8	Malignant	/
7	Left lateral Lloyd / Davis	8	4.0	Benign	TEM
8	Anterior / Prone	7	0.6	Benign	EMR & polypectomy
9	Posterior / Lloyd Davis	4	0.4	Carcinoid	Polypectomy
10	Posterior / Lloyd Davis	6	1.75	Malignant	/

- 10 consecutive patients underwent resections using the glove TEM port
- Mean (range) distance from the anal verge and tumour surface area was 5.8 (2-9)cm and 34 (0.3-152)cm^2 respectively
- Total cost of the glove port was £43.70

Table 2: Operative data & histopathology results

Case	Intention	Technique	Specimen surface cm2	Operative time (min)	Intraoperative difficulties	Resection margin	Final histology
1	Cure	FT & PT	6.9	30	Air-leak	Negative	pT1(sm1), G2, 1+ V+
2	Cure	FT	3.3	52	Smoke	Negative	Tubular adenoma, G1
3	Cure	FT	12	55	/	Negative	PT(sm1), G2, 1-, V-
4	Cure	FT & PT	120	90	/	Negative	Villous adenoma, G1
5	Cure	FT	152	114	Smoke	Positive	Villous adenoma, G3
6	Local control	FT	29.3	124	/	Positive	PT3, G2, , 1+, v+
7	Cure	FT	9.0	59	Smoke	Negative	Villous adenoma, G1
8	Cure	FT	5.0	115	Conversion	Negative	Villous adenoma, G3
9	Cure	FT	3.0	70	Inner ring fit	Negative	Residual scar only
10	Cure	FT	12.0	110	Inner ring fit	Negative	PT3, G2, 1+, v+

(FT: full thickness excision, PT: partial thickness excision)

- no serious intra-operative complications occurred, mean operating time was 84 min
- conversion to conventional TEM was necessary in one case (failure to insert CAD)
- Seven patients were discharged on the first postoperative day.
- no local recurrences were detected after a mean follow-up of 5 months

CONCLUSIONS

- the glove TEM port is a safe, inexpensive and readily available tool that can be used in combination with regular laparoscopic tools for transanal resection of tumours.
- It is surgeon friendly, economically attractive, and universally applicable.

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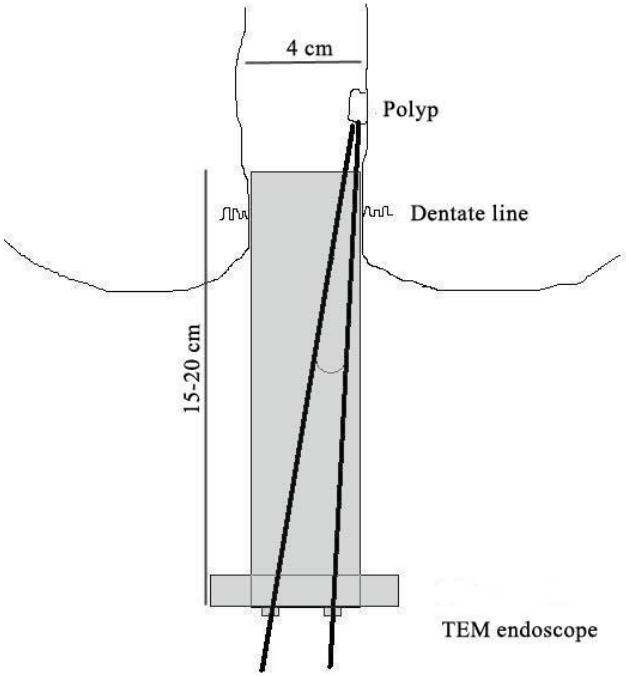
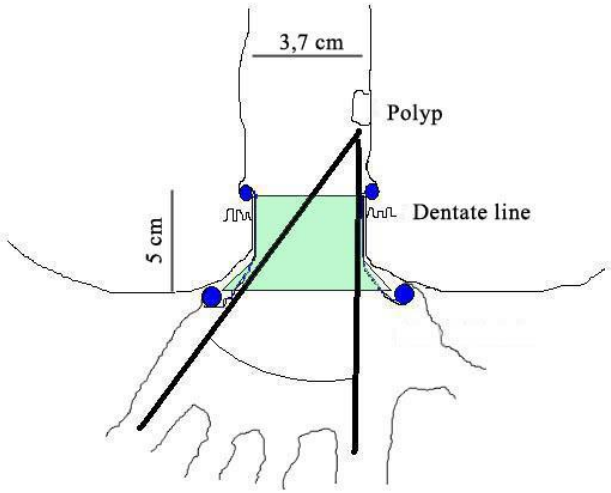
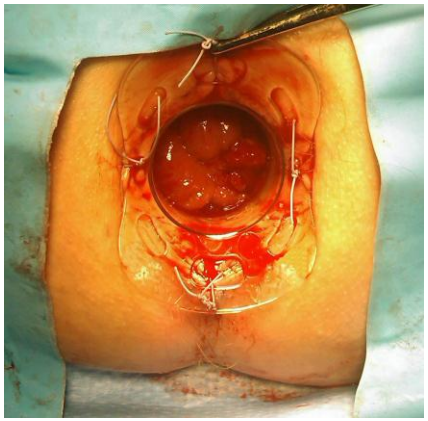
2012)

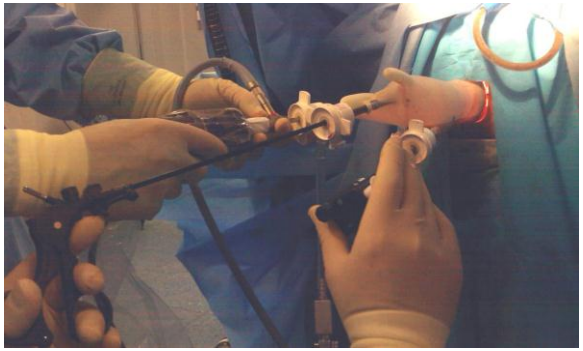


TEM endoscope

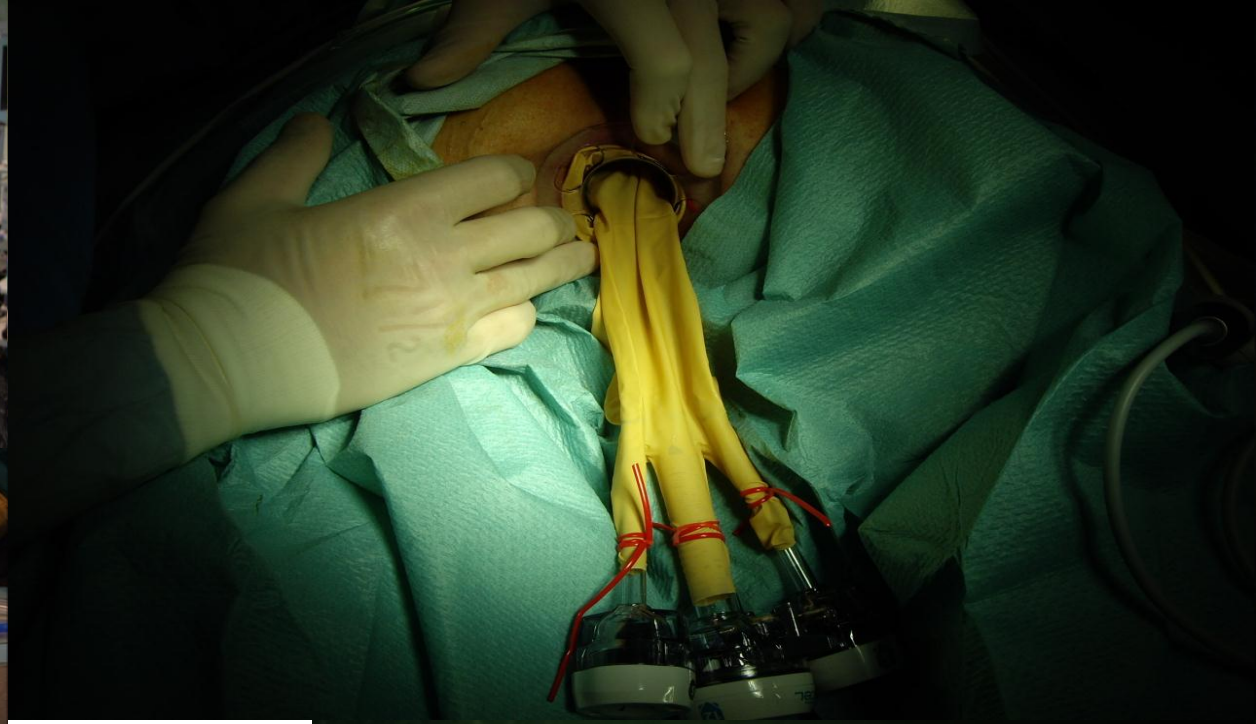


Glove TEM device

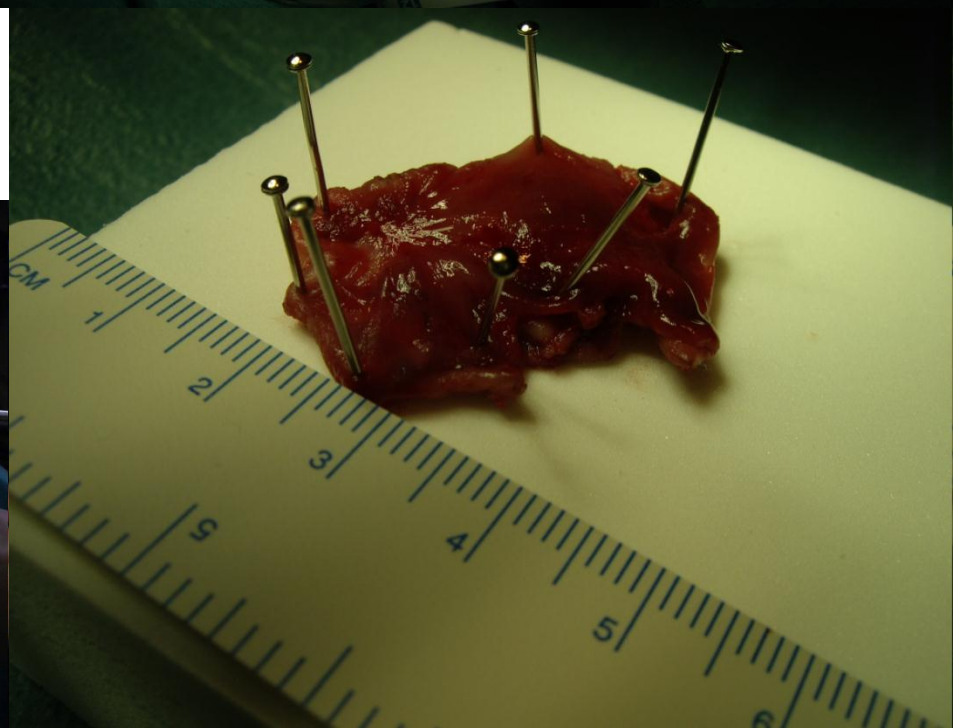




Carrara A. Y cols. Glove Port technique for transanal endoscopic microsurgery
IJSO 2012



TEM
“Glove-Port”



Cirugía experimental

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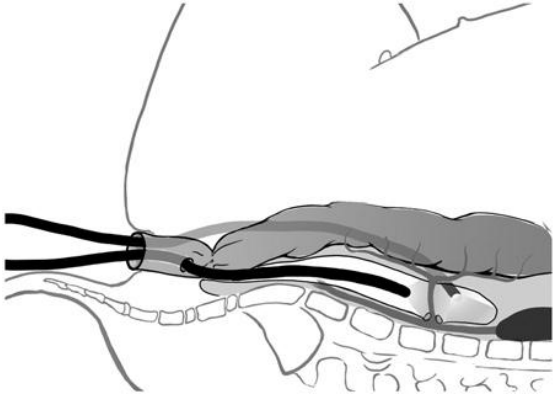

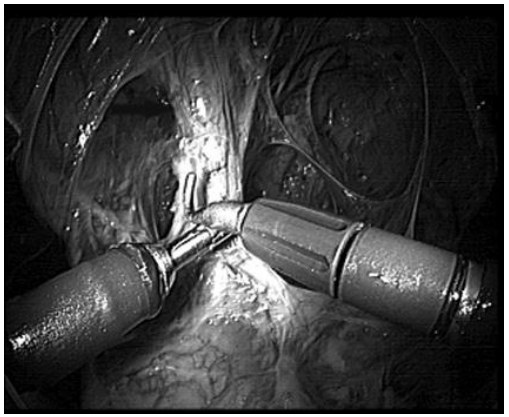

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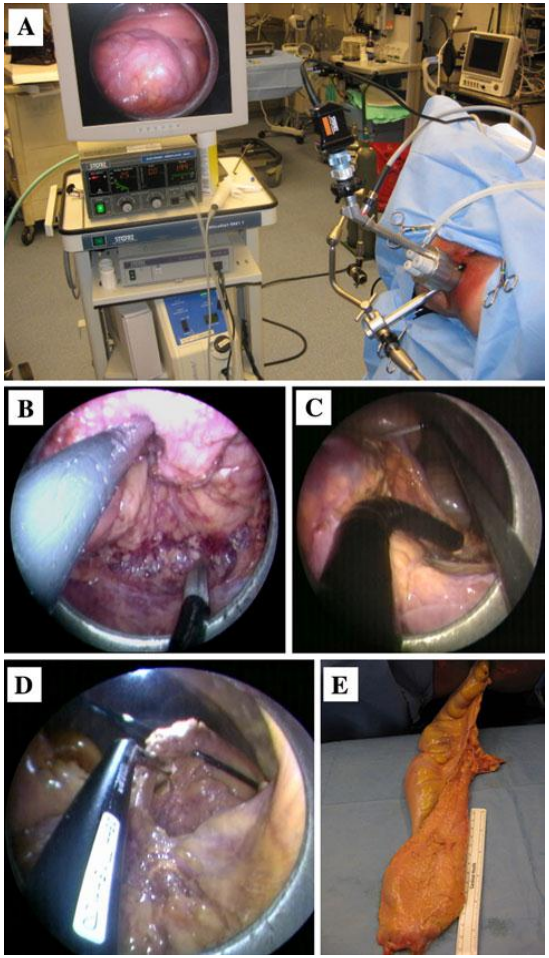
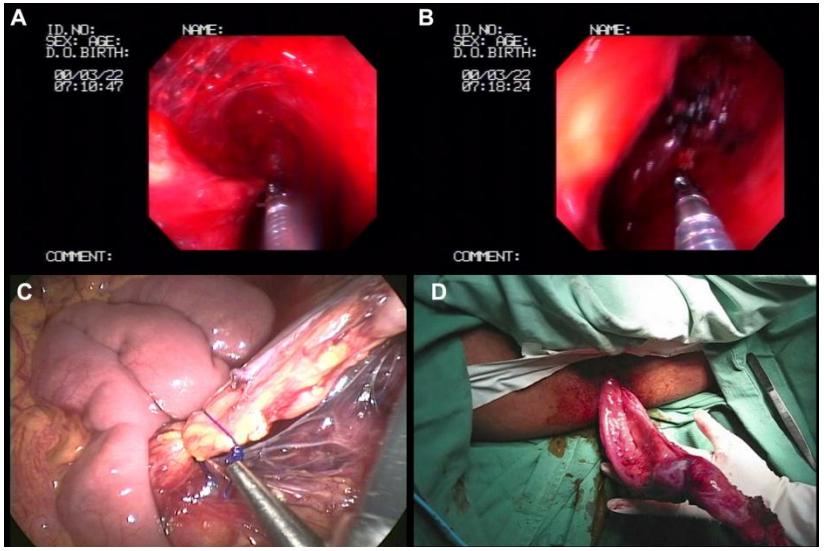
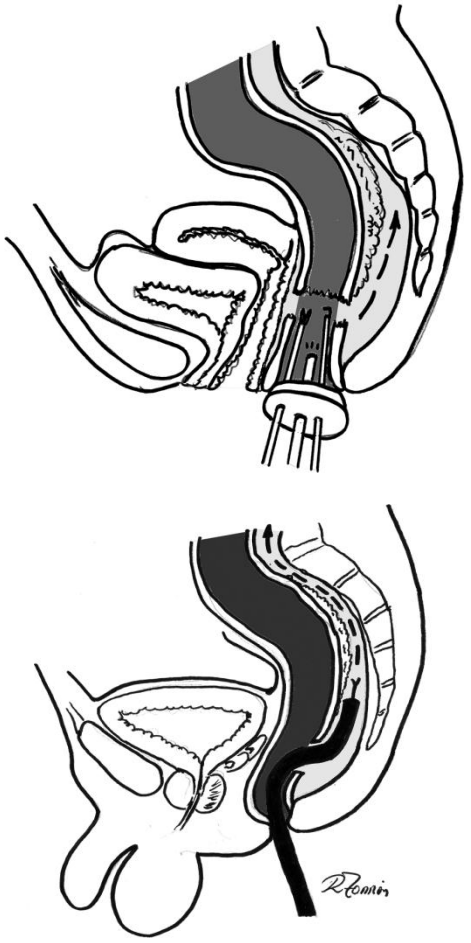


- Transanal (19)
- Transanal + transgastric (5)
- Transanal + laparoscopic (8)
  - <complicacones
  - >longitud espécimen

Pacientes





Perirectal NOTES Access: “Down-to-up” Total Mesorectal Excision for Rectal Cancer
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Sylla P, Rattner DW, delgado S, et al. *Surg Endosc* 2010; 24: 1205-1210 (1)
Tuech JJ, Bridoux V, Kianifard B, et al. EJSO 2011; 37: 334-335 (1)

Objetivo

Estandarizar la protectomía transanal endoscópica con dispositivos de bajo coste en el animal de experimentación (cerdo)

Aplicar dispositivos transanales de bajo coste y utilizar equipamiento e instrumental endoscópico convencional

Material y método

Cerdos

>30kg.

Anestesia general y monitorización

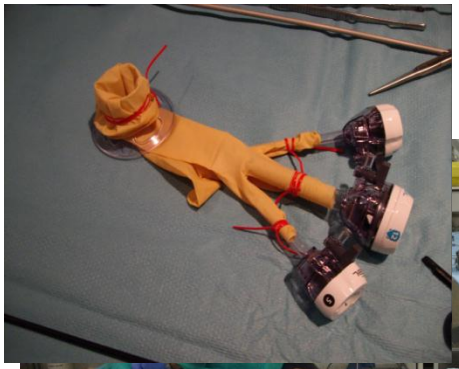
Bioterio Facultad de Medicina Universidad de Oviedo (www.unioviedo.es/ceqtt)

Torre laparoscópica

Óptica 10mm 0º

Material laparoscópico estándar

“Glove-port” modificado



Cerdo 1: Proctectomía transanal con Glove-Port y anastomosis con CEEA

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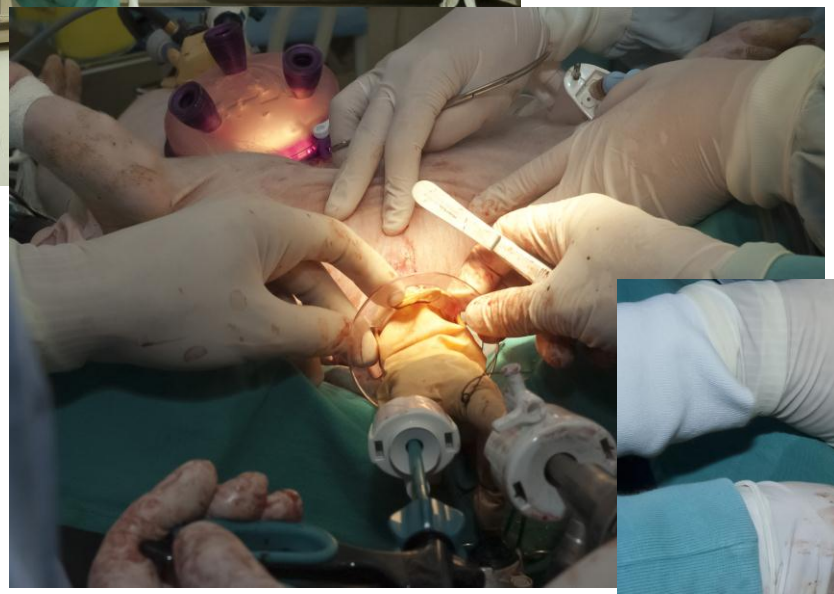
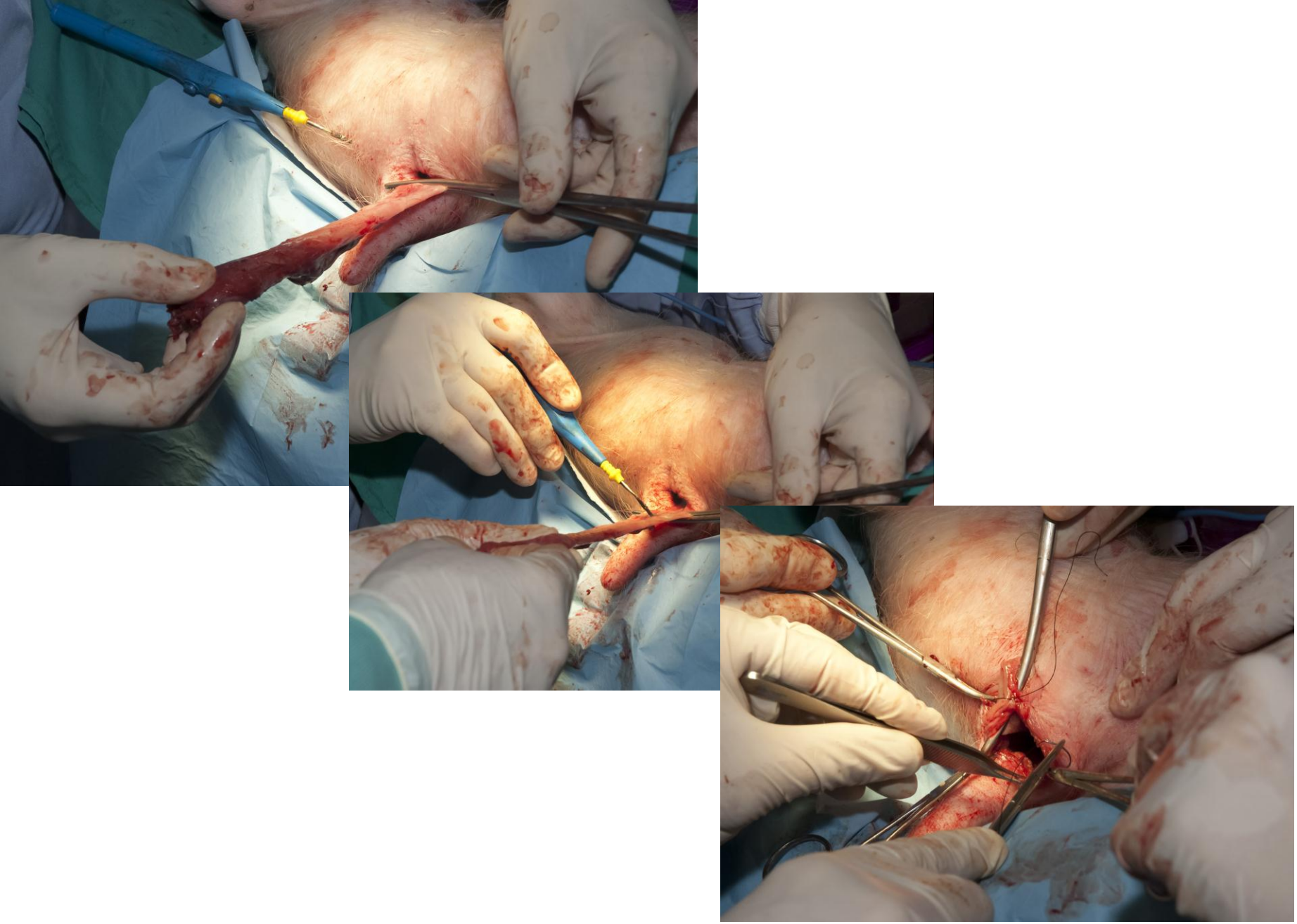
video3.mov



Cerdo 2: Proctectomía transanal con Glove-Port y anastomosis manual



Cerdo 2: Proctectomía transanal con Glove-Port y anastomosis manual

Especímenes extraidos vía transanal

Conclusiones

1. La proctectomía endoscópica transanal es factible y segura en el animal de experimentación.

2. No exige más equipamiento que lo estandar del abordaje laparoscópico más un dispositivo transanal

3. Estas experiencias permiten considerar la introducción de la técnica en indicaciones específicas y en pacientes seleccionados