TaTME in Rectal Cancer? Technique and teaching video

Prof J Calvin Coffey Professor and Chair of Surgery Graduate Entry Medical School, University of Limerick University Hospital Limerick

20th Annual Conference of the Egyptian Group of Colorectal Surgeons

History of surgery for rectal cancer

Miles APR 1908

"Sphincter-sparing" techniques 1950 - present

Heald TME 1982 - Standardisation

Laparoscopy 1990-present

Robotics and TaTME

Where are we today? Questioning laparoscopy

The ACOSOG Z6051 Conclusions

Fleshman, JAMA, 2015

Laparoscopic resection failed to meet the benchmark for noninferiority compared with open resection for pathologic outcomes

"Pending clinical oncological outcomes, the findings do not support the use of laparoscopic resection in these patients"

Are Robots the answer? ROLARR Trial

Comparison of robotic with laparoscopic surgery in the Treatment of rectal cancer

Robotic-assisted surgery for rectal cancer:
1: low conversion rate
2: Low CRM positivity
3: Reduction in conversion in males, low tumors, and obese patients

Which is the best platform?

Probably none of the above

The conclusion you receive depends on whose giving it

Which is the latest platform?

Trans-anal TME - TaTME

Transanal Endoscopic Surgery

Endoscopy 17 (1985) 31-35 ©Georg Thieme Verlag Stuttgart · New York

Endoscopic Surgery in the Rectum

G. Bueß, R. Theiß, M. Günther*, F. Hutterer, and H. Pichlmaier

Department of Surgery, University of Cologne (Director: Prof. Dr.Dr. H. Pichlmaier), Cologne, West Germany *Institute for Pathology, University of Cologne (Director: Prof. Dr. R. Fischer)



<u>1985!!</u>



Prof G. Buess

Fig. 1 System for endoscopic surgery

<u>What are TEMS – TAMIS – TaTME ?</u>



Dep. Colorectal Surgery: University Hospital Limerick, Ireland

TaTME – early data are promising

Author	Ν	LN (mean)	TME completeness	Free margins
Lacy 2013	20	15.9	100%	100%
Rouanet 2013	30	13	100%	84.6%
Atallah 2013	20	22.5	89.5%	90%
Chouillard 2014	16	17	100%	100%
Velthuis 2014	25	14	96%	96%
Fernandez-Hevia 2015	37	14.3	91.9%	100%
Tuech 2014	56	12	84%	94.6%
Veltcamp-Helbach 2015	80	14	88%	87.5%
Lacy 2015	140	14.7	97.1%	93.7%

TaTME – proposed oncological benefits

- 1. 36% of patients post 'TME' have residual mesorectum on MRI
- 2. Mean CRM positivity rates are 10%
- 3. Operating in the lower third is challenging obese male
- 4. Defines distal margin, obviates need for staplers above
- 5. Potential to increase sphincter preservation

Where are we now? In systematic study

Surg Endosc (2016) 30:3210-3215 DOI 10.1007/s00464-015-4615-x



COLOR III: a multicentre randomised clinical trial comparing transanal TME versus laparoscopic TME for mid and low rectal cancer

Charlotte L. Deijen¹ · Simone Velthuis² · Alice Tsai³ · Stella Mavroveli³ · Elly S. M. de Lange-de Klerk¹ · Colin Sietses² · Jurriaan B. Tuynman¹ · Antonio M. Lacy⁴ · George B. Hanna³ · H. Jaap Bonjer¹

1098 patients, mid/low rectal carcinoma

• Powered for superiority: 7 Vs 4%

Systematically investigate other indications

Int J Colorectal Dis DOI 10.1007/s00384-015-2236-4

LETTER TO THE EDITOR

Transanal total mesocolic excision (taTME) as part of ileoanal pouch formation in ulcerative colitis—first report of a case

J. Calvin Coffey^{1,2} • Mary F. Dillon¹ • James S. O'Driscoll³ • E. Faul¹

2015

University Hospital Limerick Experience



11____

...

Steps – Transanal platform for operating



Sphincter-related pressure effects?

<u>Steps – Obtain stable pneumo-rectum</u>



No rectal billowing

<u>Steps – Purse-string</u>



Some-times do With appliance

Steps – Compass points of progression



Anterior, then posterior Then sides

Avoid accumulation of blood







The Anastomosis – Why not just handsew?

Tech Coloproctol DOI 10.1007/s10151-015-1414-2



TECHNICAL NOTE

Four anastomotic techniques following transanal total mesorectal excision (TaTME)

M. Penna¹ · J. J. Knol² · J. B. Tuynman³ · P. P. Tekkis⁴ · N. J. Mortensen¹ · R. Hompes¹



Benefits to a dual team approach – Double up



Dep. Colorectal Surgery: University Hospital Limerick

How is it done ? Key elements – Patient Selection



The Rectum – Anatomic Continuity



Goals of Rectal Surgery

1: Access to mesofascial plane

2: Mesenteric/mesorectal detachment

3: Mesorectal / intestinal disconnection

4: +/- Anastomosis

General techniques in mesenteric-based colorectal surgery

J. CALVIN COFFEY AND JEREMY LIPMAN



Don't Forget the splenic Flexure





Educational Resources

iLappSurgery

RESEARCH & EDUCATION

We believe that knowledge, skills and technique improve the quality of surgery





Educational Resources – Interactive Models

Mesenteric Principles of Gastrointestinal Surgery

Basic and applied science



























485 × 186

ү Open Simulation - 🗸 🥙 🗅 🚳 🏞 🖗 🍻 🖧 🧔 🛩 📴 🐲 🕴 🗢 🙀 🛫 🛄 🚳 💆 🚳 🖉 🖉 🔤 🔤 🔤 🚾 🛄 🔯 🚳 🚱 🤯 👘 🗍 🎯 🍄 🌍 🖓 👘 🖓

Mesenteric Principles of Gastrointestinal Surgery

Basic and applied science



The mesorectum and fascia





www.mpgs.ie

20th Annual Conference of the Egyptian Group of Colorectal Surgeons

Detaching the Mesorectum – From the front





20th Annual Conference of the Egyptian Group of Colorectal Surgeons

Detaching the Mesorectum – Right Lateral View





20th Annual Conference of the Egyptian Group of Colorectal Surgeons

Detaching the Mesorectum – Left Lateral View





20th Annual Conference of the Egyptian Group of Colorectal Surgeons

TaTME in Rectal Cancer Another platform

Some promise – some challenges – needs Systematic assessment

The platform is not as important as the anatomical requirements of surgery for rectal cancer

20th Annual Conference of the Egyptian Group of Colorectal Surgeons