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 non-inferiority compared with open resection for pathologic outcomes

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

Fig. 1 System for endoscopic surgery

1985!!

Prof G. Buess
What are TEMS – TAMIS – TaTME?

Dep. Colorectal Surgery: University Hospital Limerick, Ireland
TaTME – early data are promising

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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

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 Mavrovelli³ · Elly S. M. de Lange-de Klerk¹ · Colin Sietses² · Jurriaan B. Tuynman¹ · Antonio M. Lacy⁴ · George B. Hanna³ · H. Jaap Bonjer⁵

• 1098 patients, mid/low rectal carcinoma

• Powered for superiority: 7 Vs 4%
Systematically investigate other indications

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. Dillon\(^1\) · James S. O’Driscoll\(^3\) · E. Faul\(^1\)

University Hospital Limerick Experience
Steps – Transanal platform for operating

Sphincter-related pressure effects?
Steps – Obtain stable pneumo-rectum

No rectal billowing
Steps – Purse-string

Some-times do
With appliance
Steps – Compass points of progression

Anterior, then posterior
Then sides

Avoid accumulation of blood
The Anastomosis – Why not just hand sew?
Benefits to a dual team approach – Double up

Dep. Colorectal Surgery: University Hospital Limerick
How is it done? Key elements – Patient Selection

Rullier et al. Dis Colon Rectum 2013
The Rectum – Anatomic Continuity

Mesorectum
Toldt’s fascia
Waldeyer’s Fascia

Mesenteric component of rectal resection

www.mpgs.ie
Goals of Rectal Surgery

1: Access to mesofascial plane

2: Mesenteric/mesorectal detachment

3: Mesorectal / intestinal disconnection

4: +/- Anastomosis
Don’t Forget the splenic Flexure
Educational Resources

iLappSurgery

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

iLappSurgery
Educational Resources – Interactive Models

Mesenteric Principles of Gastrointestinal Surgery
Basic and applied science

www.mpgs.ie
Mesenteric Principles of Gastrointestinal Surgery

Basic and applied science
The mesorectum and fascia

www.mpgs.ie

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Detaching the Mesorectum – From the front
Detaching the Mesorectum – Right Lateral View
Detaching the Mesorectum – Left Lateral View

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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

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