Patterns of care

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Patterns of care in organ preservation

Response assessment:

How?

When?

Who?

Patterns of care in organ preservation

Response assessment:

How?

When?

Who?

Patterns of care in organ preservation

Response assessment:

- DRE
- MRI
- Endoscopy

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Response assessment:

How?

When?

Who?

Patterns of care in organ preservation

Response assessment:

11 weeks after start of (chemo)radiotherapy

=

6 weeks after chemoradiation

10 weeks after radiotherapy short course

Patterns of care in organ preservation

Response assessment:

How?

When?

Who?

Patterns of care in organ preservation

- ‘Patients with ypCR have an excellent prognosis’

- >10 yrs experience
- Pre-selected patients

Watch-and-wait approach versus surgical resection after chemoradiotherapy for patients with rectal cancer (the OnCoRe project): a propensity-score matched cohort analysis

Andrew G Renehan, Lee Malcomson, Richard Emsley, Simon Gollins, Andrew Maw, Arthur Sun Myint, Paul S Rooney, Shabbir Susnerwala, Anthony Blower, Mark P Saunders, Malcolm S Wilson, Nigel Scott, Sarah T O'Dwyer

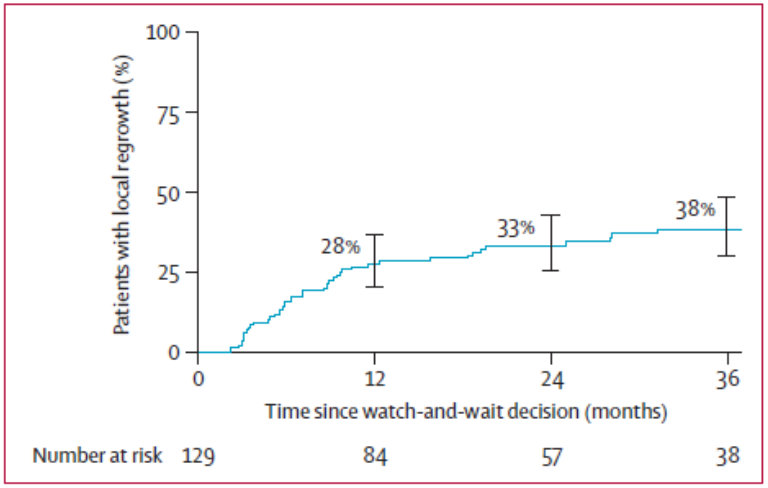


Figure 2: **Actuarial local regrowth rates in the 129 patients with a clinical complete response managed by watch and wait**

	Luminal regrowth only (n=41)	Synchronous luminal regrowth and distant metastasis (n=3)	Distant metastases only (n=4)
Salvage treatments for local regrowth	36 (88%)	1 (33%)	0
Rectal surgery			
Abdominoperineal resection	20 (49%)	1 (33%)*	0
Anterior resection	8 (20%)	0	0
Hartmann's resection	2 (5%)†	0	0
Subtotal colectomy	1 (2%)	0	0
Contact (Papillon) radiotherapy[35]	5 (12%)	0	0
Other treatments	5 (12%)	2 (67%)	4 (100%)
Surgery for distant disease			
Liver resection	0	0	2 (50%)
Inguinal lymphadenectomy	0	0	1 (25%)
Palliative chemotherapy	4 (10%)‡	2 (67%)	1 (25%)
Palliative treatment (no chemo)	1 (2%)§	0	0

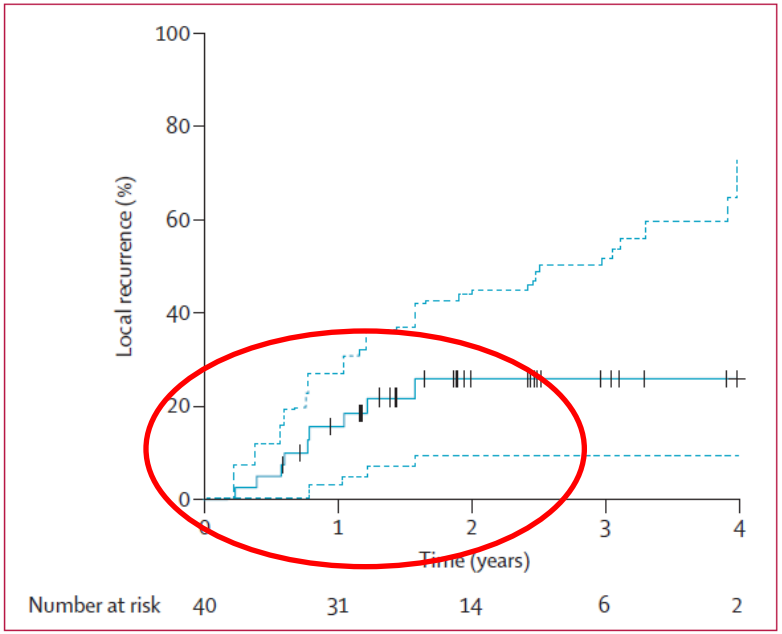
Data are number (%). *Plus liver resection. †R0 in one patient; R1 in one patient. ‡Patient choice in two patients; unfit for major surgery in two patients (one patient with advanced lung cancer; one patient with several comorbidities). §Patient unsuitable for chemotherapy or major resection because they had chronic obstructive pulmonary disease, recurrent chest infections, and hypertension.

Table 2: **Subsequent first-disease event and treatment in the 129 patients with a clinical complete response managed by watch and wait**

High-dose chemoradiotherapy and watchful waiting for distal rectal cancer: a prospective observational study

Ane L Appelt, John Pløen, Henrik Harling, Frank S Jensen, Lars H Jensen, Jens C R Jørgensen, Jan Lindebjerg, Søren R Rafaelsen, Anders Jakobsen

	Early surgery after incomplete response (n=7)	Surgery at local recurrence (n=9)*
Surgery type		
Abdominoperineal resection	6 (86%)	9 (100%)
Other	1 (14%)	0 (0%)
Pathological evaluation		
Primary tumour		
pT0	2 (29%)	0
pT1	2 (29%)	2 (22%)
pT2	2 (29%)	3 (33%)
pT3	1 (14%)	4 (44%)
Node		
pN0	6 (86%)	9 (100%)
pN1	1 (14%)	0



Lancet Oncol 2015

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Case report

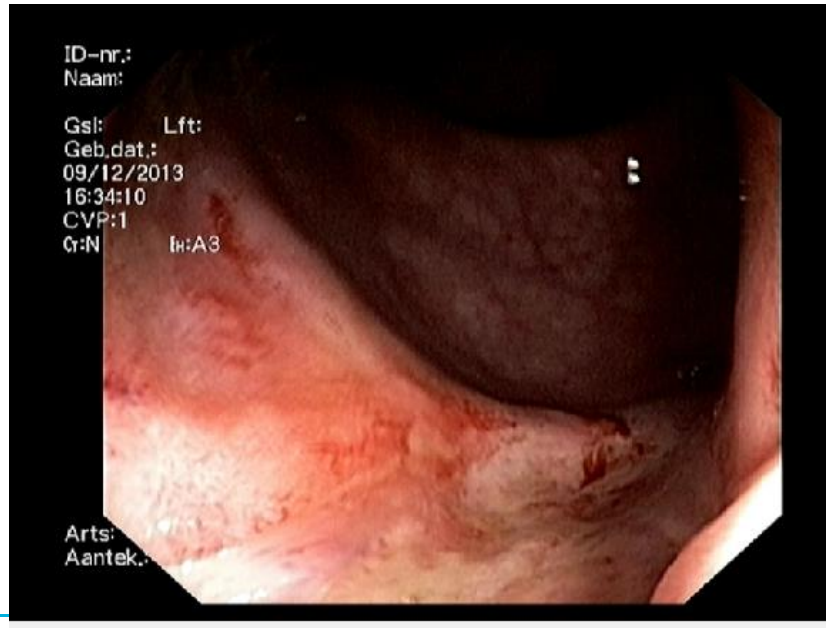
- 75 yr old male
- Perfect clinical condition
- cT3N1 rectal cancer 35mm, 10mm of anorectal ring
- ‘no stoma’

- Chemoradiation

Case report

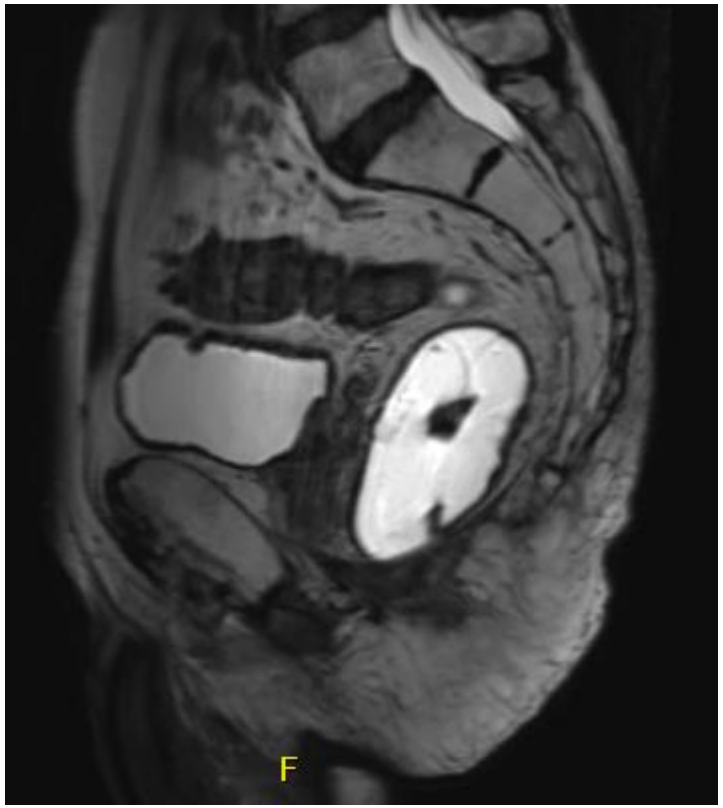
- 2.5 months after chemoradiation

no residual disease

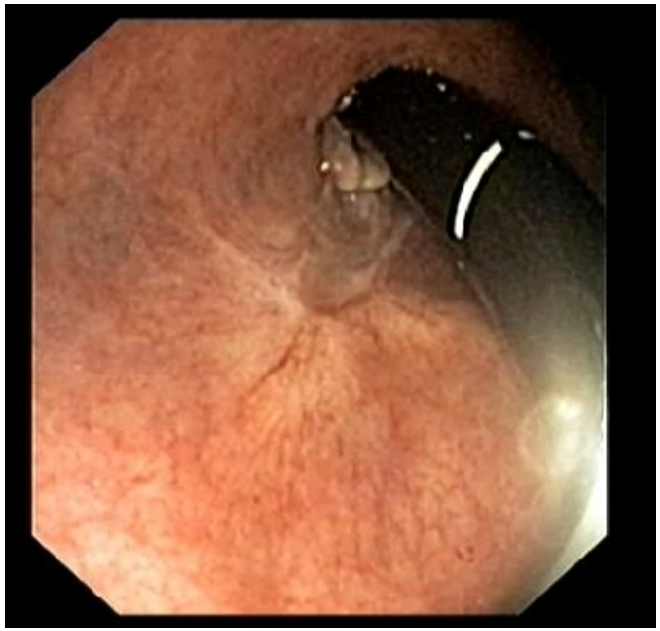


Case report

- 17 months after chemoradiation



no residual disease



Case report

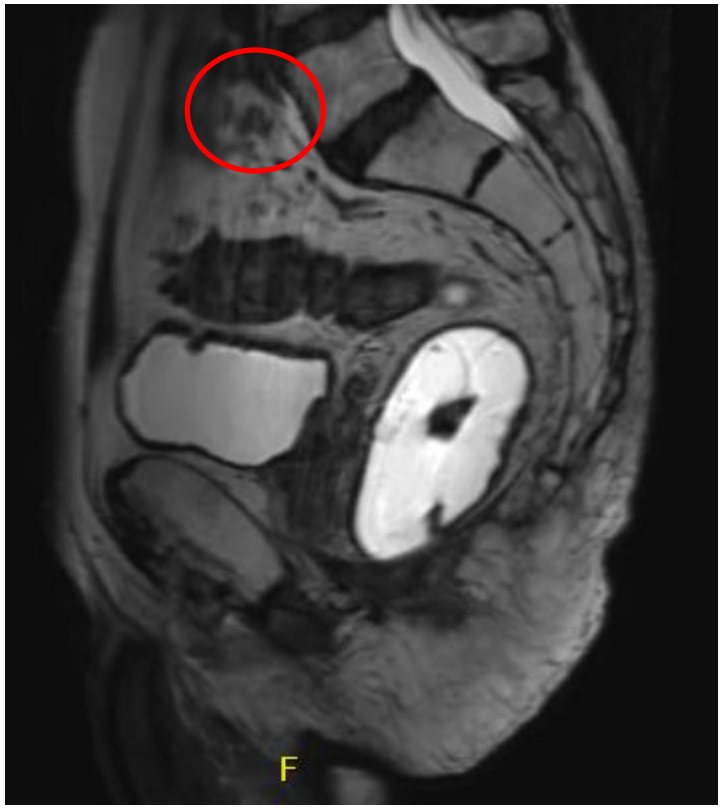
- 23 months after chemoradiation: ‘abdominal discomfort’

Primary tumor not visible, lymph node at S1

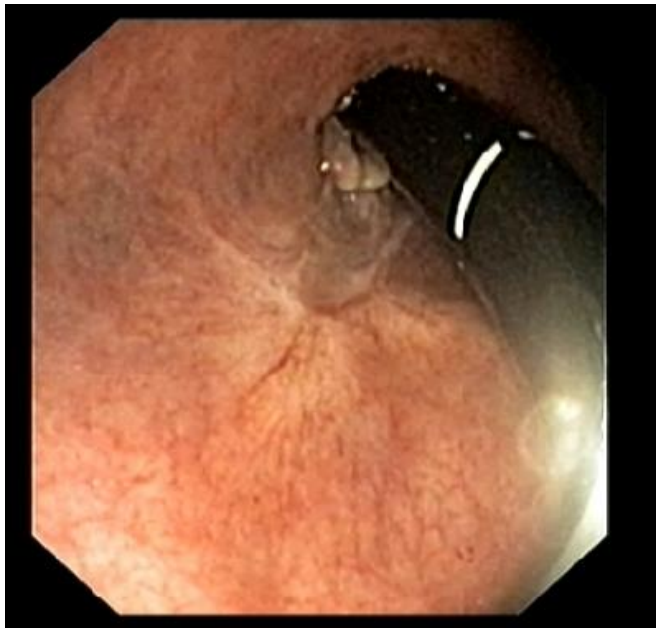
No abnormalities

Case report

- 17 months after chemoradiation

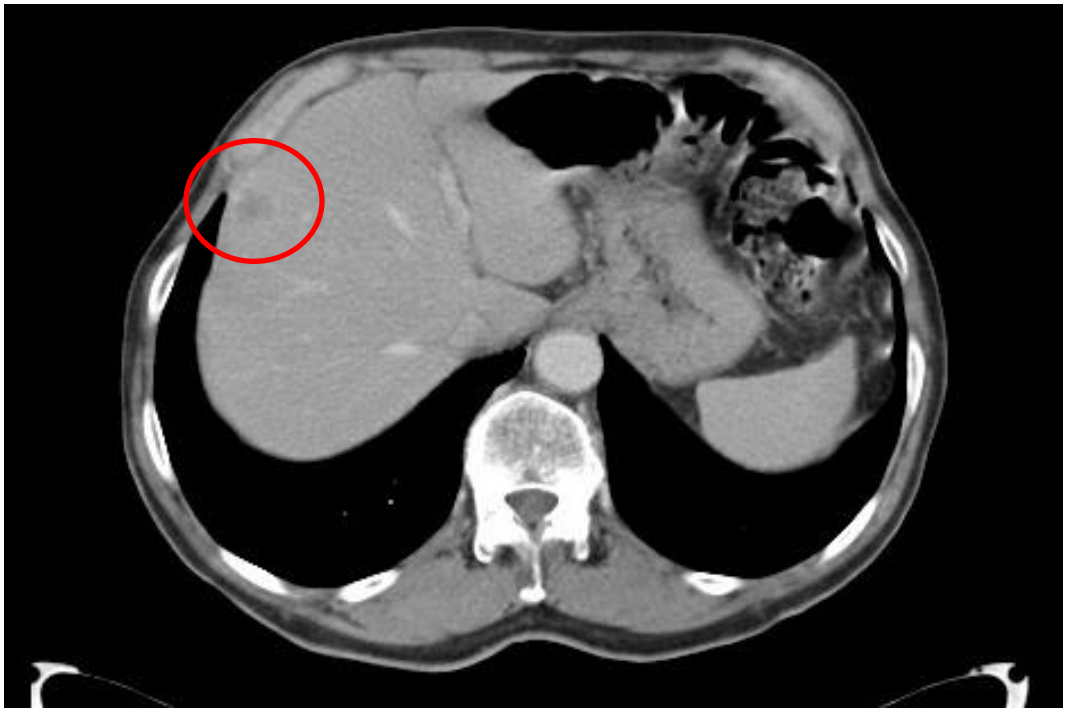


no residual disease



Case report

- 23 months after chemoradiation



1 liver metastasis in segment VIII

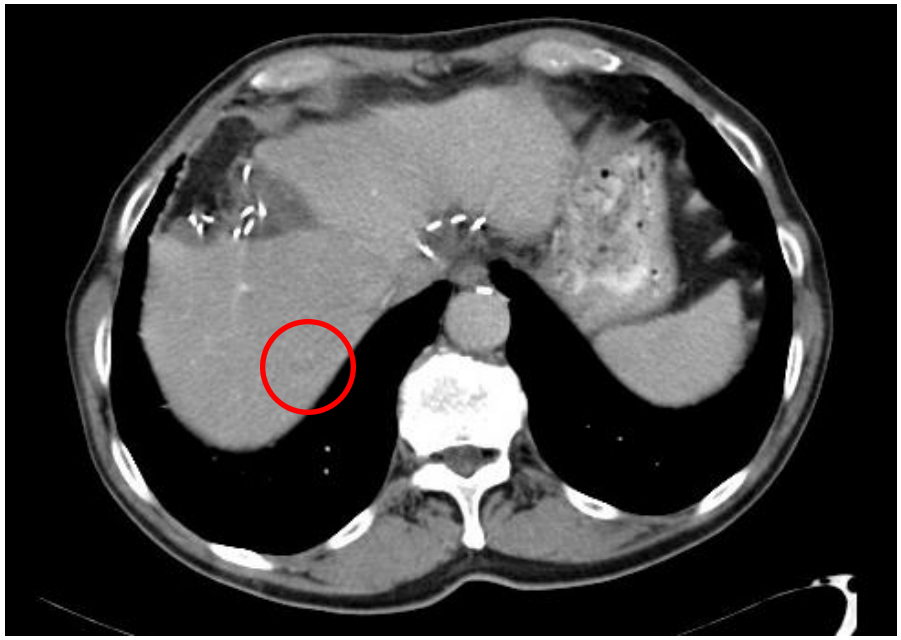
Started with systemic therapy because patient refused surgery

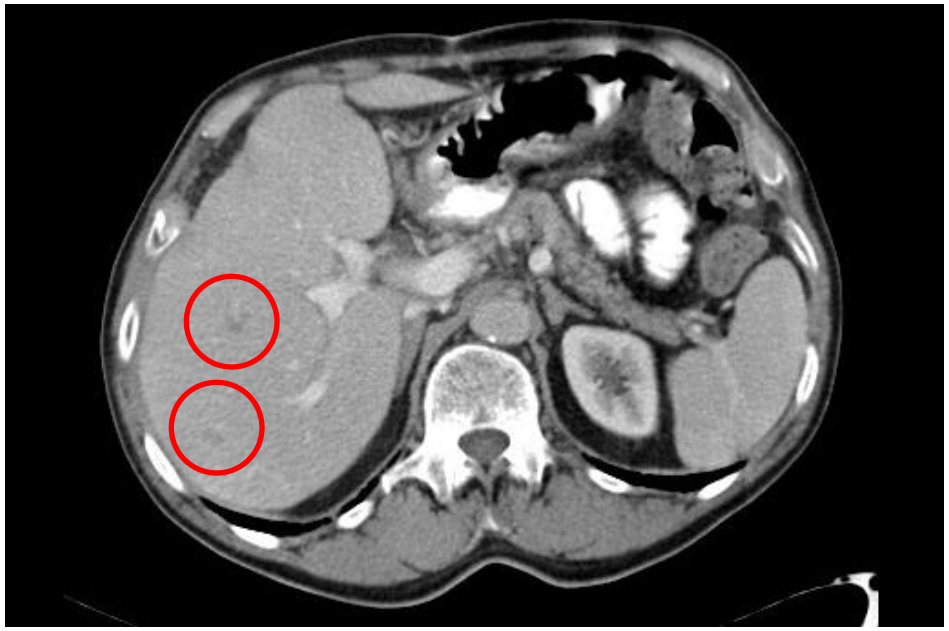
Case report

- After 2 courses of systemic therapy, severe LARS symptoms
- 28 months after chemoradiation:
- Abdominoperineal resection with segment VIII and II resection
- Pathology:
- I) Liver: segment VIII: 15mm metastasis
- II) Liver: segment II: 9mm metastasis
- III) APR: small submucosal lesion of 3 mm well differentiated adenocarcinoma 15mm above anorectal verge. 20mm perineural tumordeposit, all other mesorectal nodes without lymph node metastases.

Case report

- 31 months after chemoradiation





Case report

- 31 months after chemoradiation

- Multiple new liver lesions
- Started with palliative systemic therapy

- Deceased 4 years after chemoradiation

MRI

- **Response assessment is not easy:**
- Intraluminal disease
- Mesorectal nodes (50-60% accuracy)
- Extra mesorectal nodes
- Nodes above the radiation field

Endoscopy

- **Response assessment is not easy:**

• Clinical complete response (ypT0)	wait
• Near complete response (ypT1)	wait or TEM
• Incomplete response (ypT1-2)	TEM or TME
• No response (ypT2-3)	TME

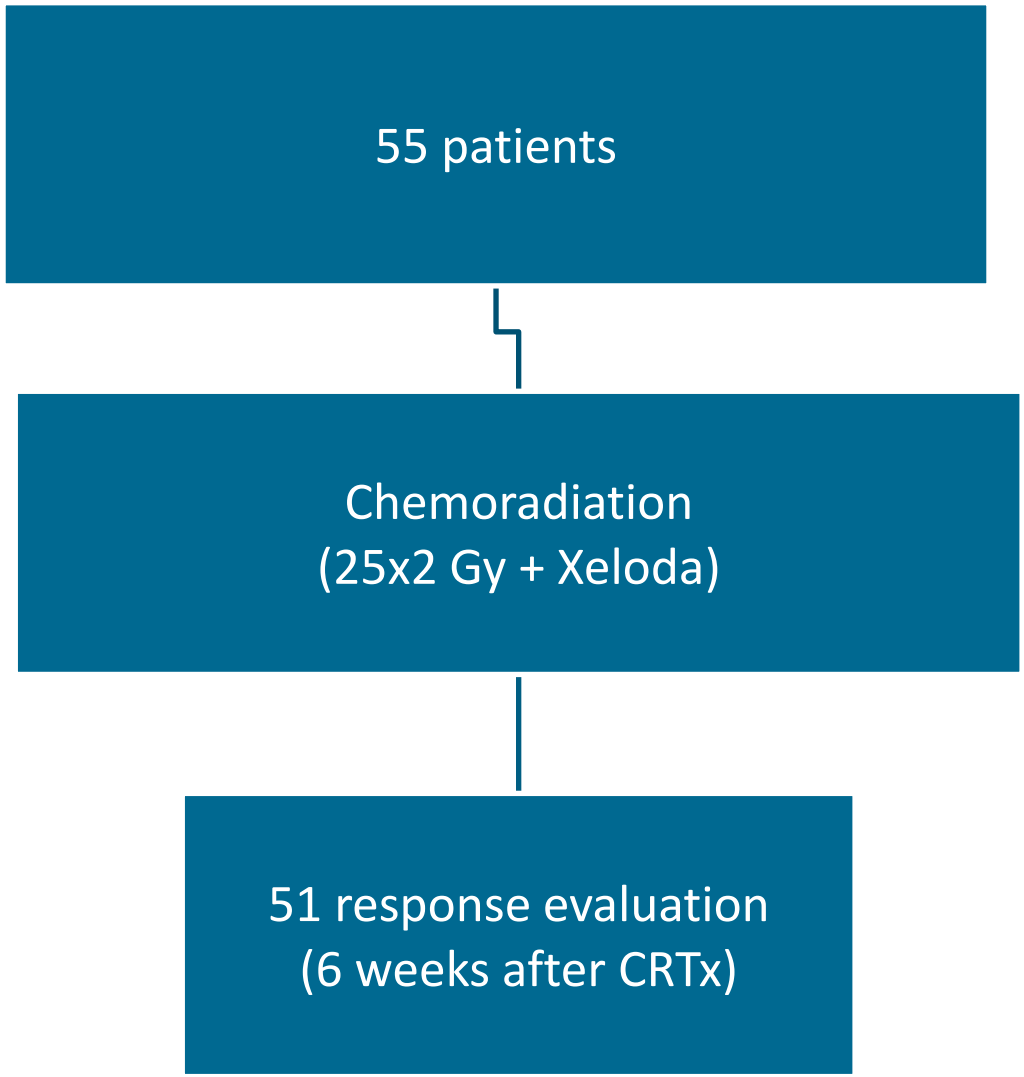
Original article

Chemoradiation therapy for rectal cancer in the distal rectum followed by organ-sparing transanal endoscopic microsurgery (CARTS study)

M. Verseveld[1,2], E. J. R. de Graaf[1], C. Verhoef[2], E. van Meerten[3], C. J. A. Punt[5], I. H. J. T. de Hingh[6], I. D. Nagtegaal[7], J. J. M. E. Nuyttens[4], C. A. M. Marijnen[9] and J. H. W. de Wilt[8], on behalf of the CARTS Study Group*

	No of patients* ($n = 55$)
Age (years)†	64 (39–82)
Sex ratio (M : F)	30 : 25
Tumour size (cm)‡	3·4 (3·0–5·0)
Clinical tumour category	
cT1	10
cT2	29
cT3	16
Clinical node category	
cN0	50
cN1	5
Distance from anal verge (cm)‡	3·5 (2·0–6·0)

CARTS



Verseveld et al. BJS 2015

Response evaluation

DRE, MRI, endo-anal US, Endoscopy

6 weeks after chemoradiation

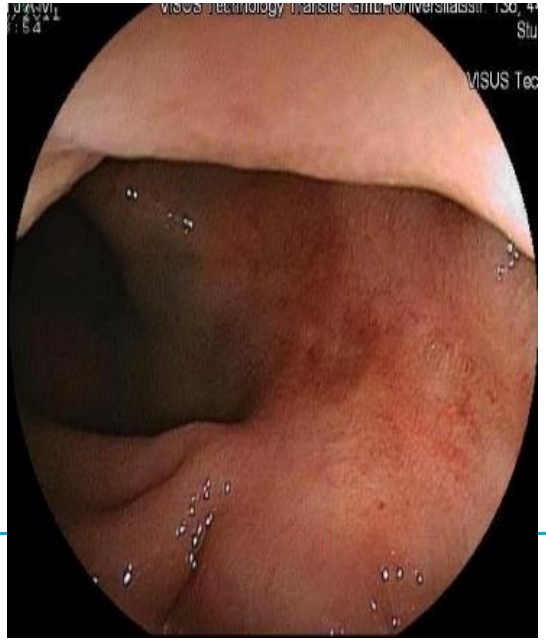
26 patients endoscopy pictures available



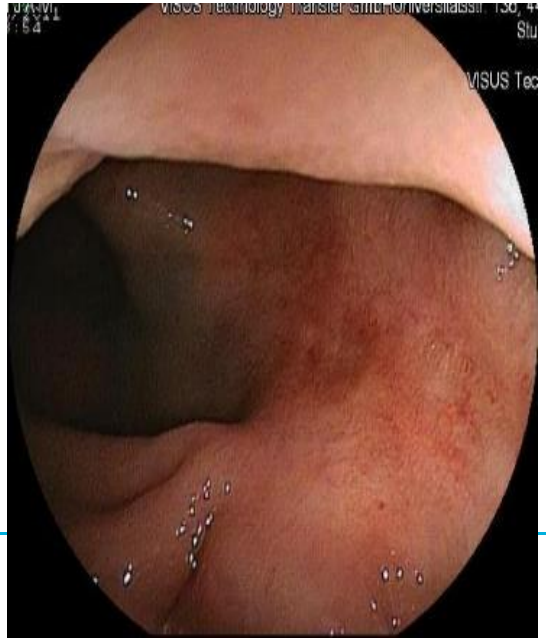
Patient: ypT2





Patient 3: ypT0

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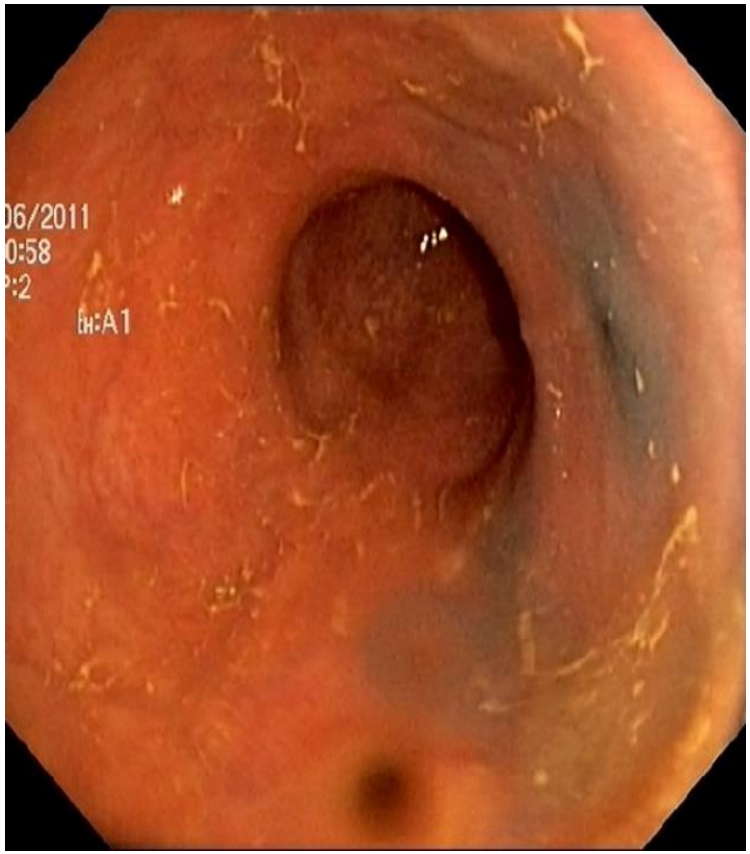
EH:A1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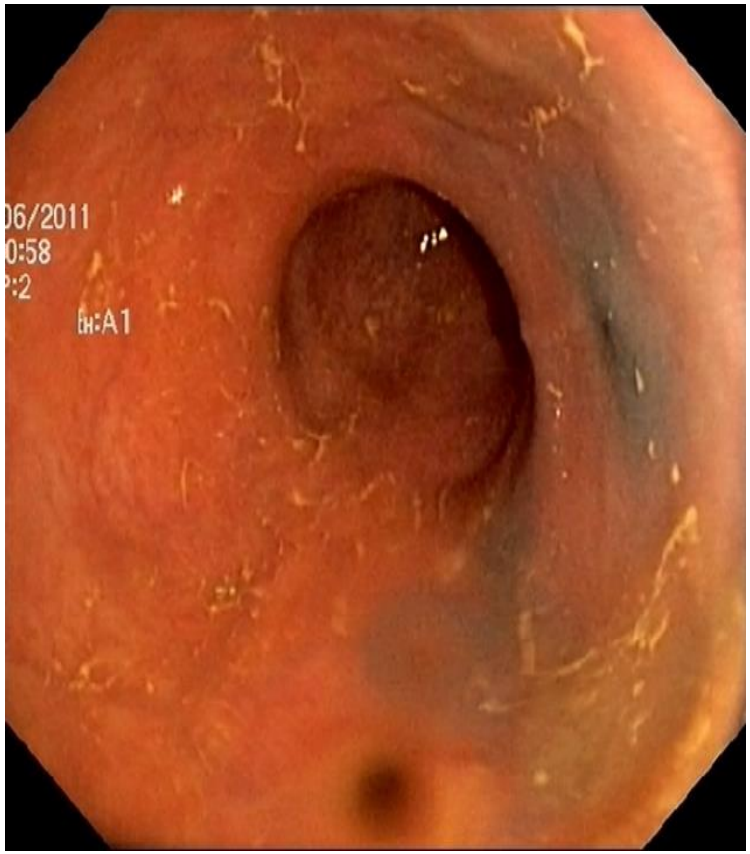
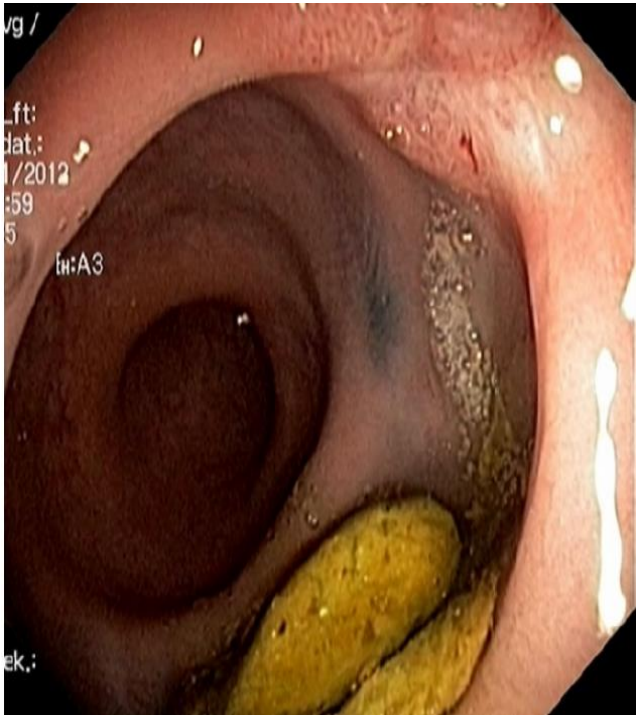
Patient 4 ypT0



Patient 6: ypT3



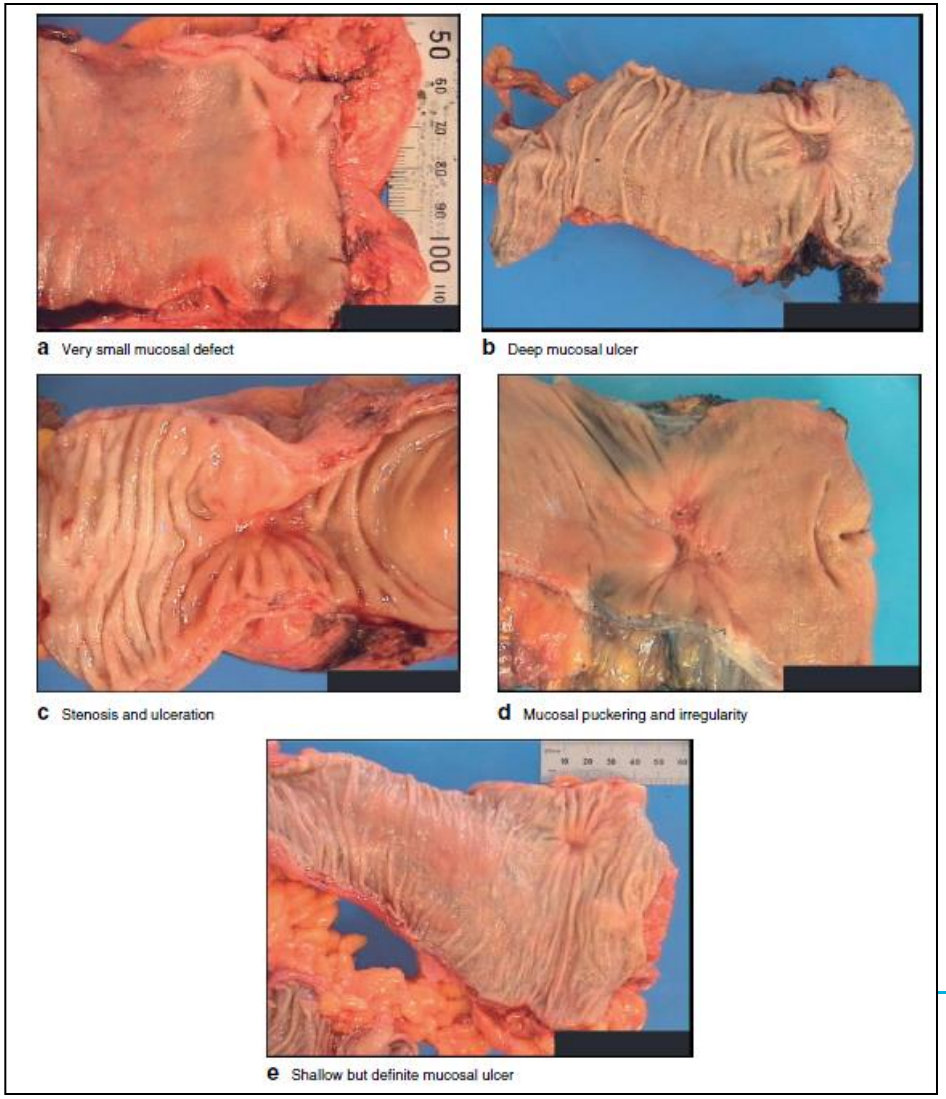
CARTS endoscopies

Not easy

6-8 weeks repeated examinations
Dedicated examinators
Learn from feedback

The surgical significance of residual mucosal abnormalities in rectal cancer following neoadjuvant chemoradiotherapy

F. M. Smith[1,2], K. H. Chang[1,2], K. Sheahan[2,3], J. Hyland[1,2], P. R. O'Connell[1,2] and D. C. Winter[1,2]



- Various suspicious lesions demonstrated to be ypT0N0
- ycPR = ypCR = 19/31 = 61%!

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Smith, Br J Surg 2012; 99:993-1001

CARTS Clinical response (DRE, Scopy, EndoUS, MRI)

- 4 pts with minor/no clinical response: TME surgery
  - 2 ypT1N0 (overstaged)
  - 2 ypT2N1
- 47 pts with successfull clinical response: TEM treatment
  - 21 ypT0N0
  - 9 ypT1N0
  - 15 ypT2N0 (understaged)
  - 1 ypT3N0
  - 1 ypT0N1

Verseveld et al, BJS 2015

Conclusion

- Dedicated teams for organs preservations
- Experience is all that matters
- ‘High volume’ centers

Conclusion

- Dedicated teams for organs preservations
- Experience is all that matters
- ‘High volume’ centers

Treatment	ypT0-1	Total
5x5Gy 5-15 weeks delay	26 (15.2%)	171
Chemoradiation	210 (23.3%)	900
Total number	236	1071

STARTREC Wait&See

RadboudUMC
LUMC
AvL/Slootervaart
Laurentius/MUMC
CatherinaZH
Isala
Diakonessen/UMCU
VUMC/AMC
Ijsselland/ErasmusMC
LeeuwardenMC
Amphia
TEZ

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Thank you

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