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ORAL

The impact of surgical training workshops on the outcome in rectal cancer in the population of Stockholm

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The Swedish rectal cancer radiotherapy trials have led to an increasing use of short course preoperative radiotherapy in rectal cancer (RC). Despite this the local recurrence (LR) rate after irradiation, with conventional surgery, has been 12–15%. Following reports that Total Mesorectal Excision (TME) may reduce LR to below 5% in curative cases, the Stockholm Rectal Cancer Study Group set up a collaborative project of surgical workshops to introduce TME to the surgeons of Stockholm. Three workshops were held between 1994 and 1997. The aim of the study was to assess if the TME technique could reduce the LR rate after RC surgery in the population of Stockholm and thus if a surgical teaching initiative could have a direct effect on patient outcome.

Material and Methods: Prospectively collected data on postoperative morbidity-mortality and LR rate within two years of surgery in all RC patients in Stockholm 1995–96 were compared to data from patients included in the two Stockholm radiotherapy trials (Stockholm I Trial; 1980–87 and Stockholm II Trial; 1987–93). Patients operated on with a curative abdominal procedure were included in the analysis.

Results: In all, 70% of patients with RC had a curative abdominal procedure in Stockholm 1995–96. In the Stockholm I Trial the corresponding figures were 81% and in the Stockholm II Trial 86%. TME was performed in 83% of the patients in 1995–96. The rate of abdominoperineal resection (APR) was 26% in 1995–96 compared to 60% and 55% in the Stockholm I and Stockholm II Trials ($p < 0.001$). The crude LR rate was 5.5% in 1995–96 compared to 16% and 14% respectively in the two Stockholm Trials ($p < 0.001$).

Conclusion: The rate of LR and APR was reduced in RC patients in Stockholm after the introduction of TME technique. Surgeons can adopt this technique by workshops with active surgical training. Surgical teaching initiatives like the TME workshops significantly improve outcome in rectal cancer.

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Preop chemoradiation (CTRT) \pm postop chemo (CT) in locally advanced rectal cancer. Preliminary results

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Purpose: to report the preliminary results of a multicenter randomized trial on preop CTRT followed or not by postop CT in 583 pts with locally advanced rectal cancer (T3–T4) after 33.6 months mean follow up (Sept. 93–Feb 99).

Materials and Methods: males 388, females 195, median age 61 yrs, tumor stage: T3 401, T4 98; distance from anal verge: <4 cm 109, ≥ 4 –8 cm 375, >8 cm 80. Preop CTRT: 45 Gy (180 cGy \times 5, weekly) + 5-FU 350 mg/mq and Fol.ac. 10 mg/mq on days 1 to 5 and 29 to 33, of the RT. Postop. CT: 5-FU 350 mg/mq and Fol.ac. 100 mg/mq day 1 to 5 for 6 cycles, 3 weeks apart.

Results: to be considered as preliminary because the forms collection from the participating centers is still ongoing. Preop CTRT: forms received 475; completing the preop treatment 466; toxicity \geq G3 28 (2 toxic deaths); undergoing surgery 439 (APR 152, LAR 281, palliative 6); interval CTRT-

surg: median 39 days; anastomotic deiscence 43, perineal abscess 11, intestinal occlusion requiring surgery 10; perioperative deaths 5. Operative specimen pathology: no residual tumour 74, tumour within the intestinal wall 153, still outside the intestinal wall 195; positive nodes 103; positive margins 12. Postop CT: randomized 299; forms received 135, completing a minimum 6 cycles 110. Follow-up: forms received 391, with 6 months minimum follow-up; local recurrence alone 15; local and distant 10; distant only 75. Postop CT alone not evaluated.

Conclusion: preop CTRT resulted in pathological down-staging in 2/3 of cases (negative specimens 17%) and local recurrence rate of 6%.

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Influence of the interval between pre operative radiotherapy (preop RXT) and surgery on downstaging and sphincter preservation for rectal cancer. The LYON R90 01 randomized trial

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Purpose: The aim of this trial was to evaluate the role of interval between preop RXT and surgery in the treatment of rectal cancer.

Methods: Operable patients with rectal adenocarcinoma accessible to digital recta examination, staged T2-3 Nx M0 were randomized before radiotherapy (39 Gy/13 fractions/17 days – 3 fields technique \times 18 MV) into 2 groups: short interval (SI) with surgery performed within 2 weeks after the end of RXT versus long interval (LI) surgery delayed after 6 weeks. Between 1991 and 1995, 205 patients were included and the groups were well balanced (median age 64 Y).

Results:

	SI (N = 99)	LI (N = 102)	P
Clinical response:	53%	71%	0.04
Sterilized specimen (\pm)	10%	26%	0.05
Sphincter preservation	68%	76%	N.S
Anastomotic leak	13%	10%	N.S
Local recurrence (3Y)	9%	10%	N.S
3 y. overall survival	78%	74%	N.S

In patients with tumor in the low rectum (5 cm or less above anal verge) the sphincter preservation was only 23% in SI and 41% in LI.

Conclusion: After preop RXT a long interval increases the tumor down staging and in some selected cases many increase the chance of sphincter preservation. No increase in complication or local recurrence is seen with long interval (accepted for publication in J. Clin. Oncol.)

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In vivo monitoring of tumor microcirculation changes during radiotherapy in patients with rectal carcinomas: Preliminary results and possible implications for therapy

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Purpose: This study aimed to measure microcirculatory changes within rectal carcinomas during fractionated radiotherapy.

Material & Methods: Perfusion data were obtained by Magnetic Resonance Imaging (MRI) measurements using a specially ultrafast T1 mapping sequence in a 1.5Tesla whole body scanner. T1 maps were acquired in intervals of 14 sec or 120 sec during and after constant rate infusion of Gadolinium-DTPA (Gd-DTPA). The Gd-DTPA concentration time curve was evaluated separately for arterial blood and tumor over a time course of 40 minutes. The applied method allows a spatial resolution of 2 mm \times 2 mm \times 5 mm. Patients underwent MR imaging before and at weekly intervals during the entire course of fractionated radiotherapy.