Complete Response After Chemoradiotherapy for Rectal Cancer - A Chance to Cure Without Surgery -

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Background

- Lifetime risk of colorectal cancer is 6.5%*
  - Rectal cancer comprises approximately 30%†
- Complete rectal resection has been the preferred treatment since the early 1900s

*Canadian Cancer Statistics at
http://www.cancer.ab.ca/vgn/images/portal/cit_86751114/14/33/195986411niw_stats2004_en.pdf

†Health Canada data at
http://www.hc-sc.gc.ca/pphb-dgspsp/publicat/cdic-mcc/24-4/c_e.html

Background

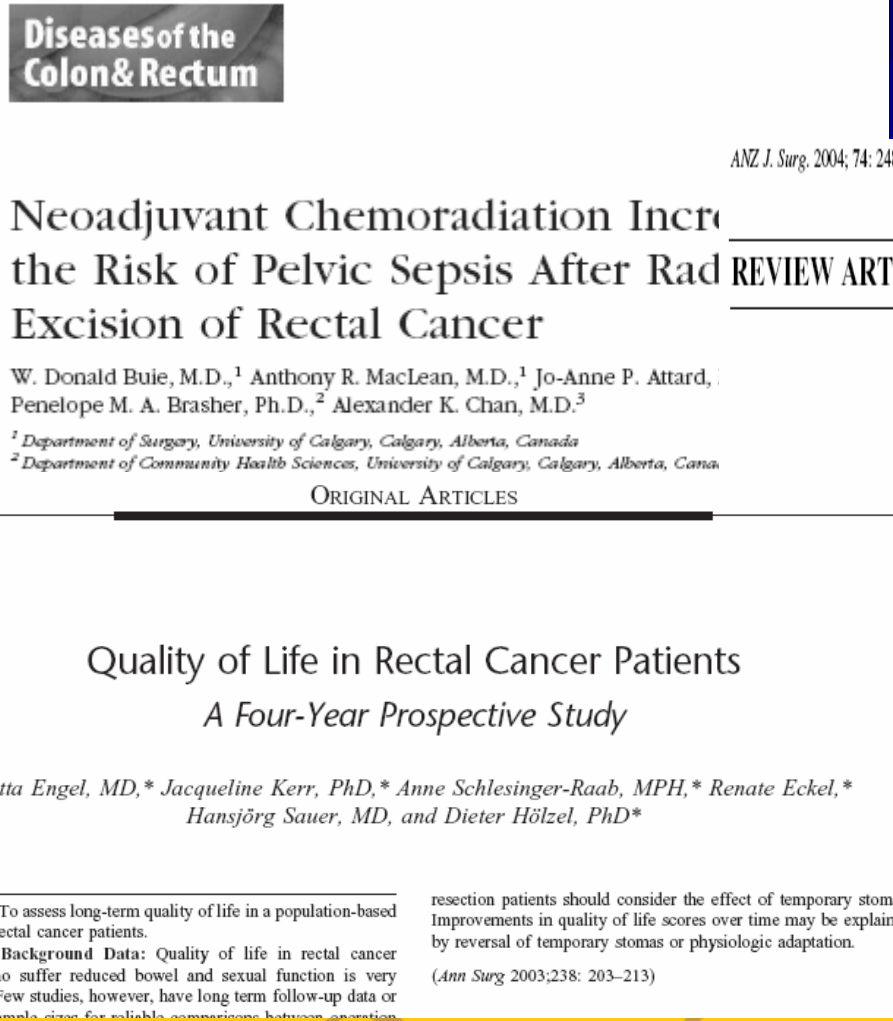
- Preoperative radiotherapy
  - Dutch Rectal Cancer Study
    - Reduced Local Recurrence by 5% overall*
- Complete pathologic response
  - 10-30% of patients treated with long course chemoradiotherapy**

* Kapiteijn, NEJM 2001

** Medich, Dis Col Rect 2001

Hiotis, J Am Coll Surg 2002

Background



Diseases of the Colon & Rectum

Neoadjuvant Chemoradiation Incr
the Risk of Pelvic Sepsis After Rad
Excision of Rectal Cancer

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ORIGINAL ARTICLES

Quality of Life in Rectal Cancer Patients

A Four-Year Prospective Study

Jutta Engel, MD, Jacqueline Kerr, PhD,* Anne Schlesinger-Raab, MPH,* Renate Eckel,* Hansjörg Sauer, MD, and Dieter Hölzel, PhD**

Objective: To assess long-term quality of life in a population-based sample of rectal cancer patients.

Summary Background Data: Quality of life in rectal cancer patients who suffer reduced bowel and sexual function is very important. Few studies, however, have long term follow-up data or

resection patients should consider the effect of temporary stomas. Improvements in quality of life scores over time may be explained by reversal of temporary stomas or physiologic adaptation.

(*Ann Surg* 2003;238: 203–213)

ANZ J. Surg. 2004; 74: 248–259

REVIEW ARTICLE

SEXUAL FUNCTION AFTER RECTAL EXCISION

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excision is associated with a risk of autonomic nerve damage and associated sexual dysfunction (SD). The tanding of the anatomy and physiology of sexual function together with continual refinement of surgery for nt disease has led to a decrease in the incidence of SD after rectal surgery. A knowledge of the degree of risk mportant both for the patient and as a benchmark for audit of individual colorectal practice.
ble literature on the anatomy, physiology and surgical aspects of this topic has been researched through the nore recently available data are reviewed in the context of the historical evolution of surgery for benign and

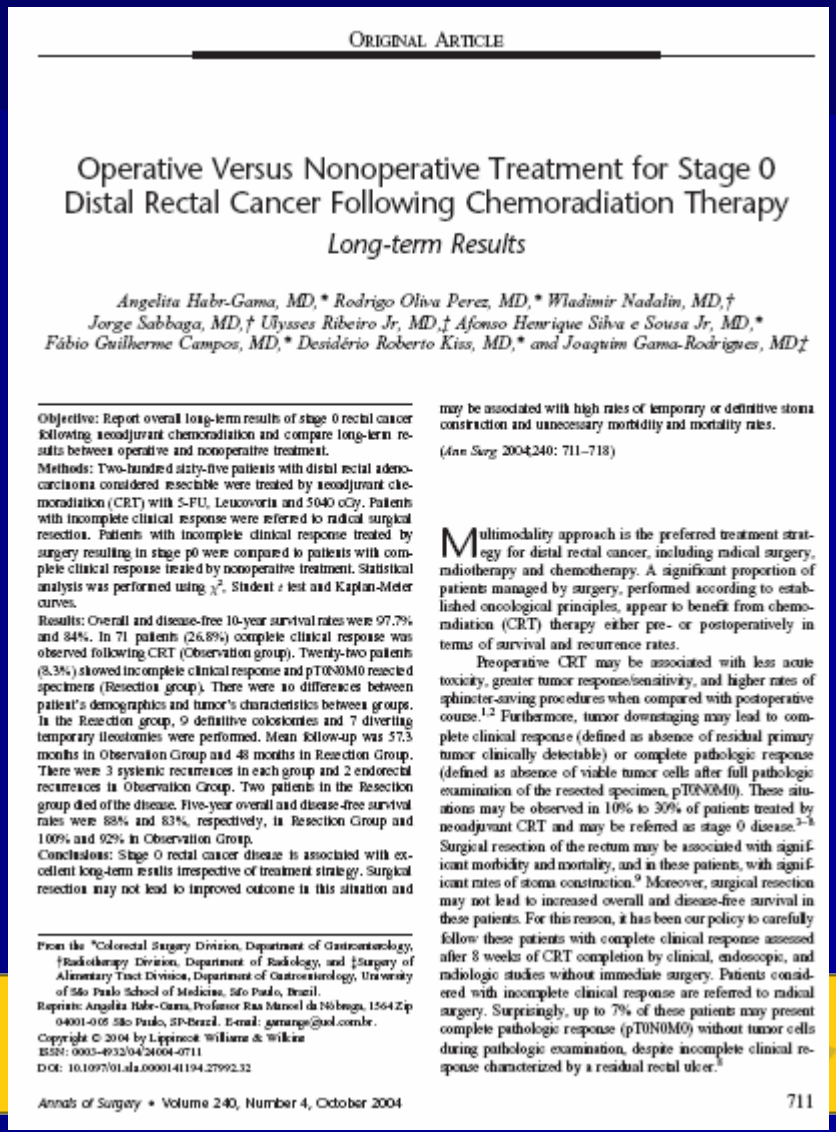
s: In the best hands, permanent impotence occurs in less than 2% of patients following restorative

Complete Response - Impact on Prognosis

- Gaviolo, Dis Col Rect 2005
  - 25 pts with CR
  - No recurrence
  - Median fu 30 months
- Biondo, BJS, 2005
  - 16 pts with CR
  - 1 local recurrence, 1 distant recurrence
  - Median fu 40 months
- Rodel, JCO, 2005
  - 40 pts with CR
  - No local recurrence at 5 yrs

Non-Operative Management

- Habr-Gama, Ann Surg 2005



ORIGINAL ARTICLE

Operative Versus Nonoperative Treatment for Stage 0 Distal Rectal Cancer Following Chemoradiation Therapy

Long-term Results

Angelita Habr-Gama, MD, Rodrigo Oliva Perez, MD,* Wladimir Nadalin, MD,† Jorge Sabbaga, MD,† Ulysses Ribeiro Jr, MD,‡ Afonso Henrique Silva e Sousa Jr, MD,* Fábio Guilherme Campos, MD,* Desidério Roberto Kiss, MD,* and Joaquim Gama-Rodrigues, MD‡*

Objective: Report overall long-term results of stage 0 rectal cancer following neoadjuvant chemoradiation and compare long-term results between operative and nonoperative treatment.

Methods: Two-hundred sixty-five patients with distal rectal adenocarcinoma considered resectable were treated by neoadjuvant chemoradiation (CRT) with 5-FU, Leucovorin and 5040 cGy. Patients with incomplete clinical response were referred to radical surgical resection. Patients with incomplete clinical response treated by surgery resulting in stage p0 were compared to patients with complete clinical response treated by nonoperative treatment. Statistical analysis was performed using χ^2, Student *t* test and Kaplan-Meier curves.

Results: Overall and disease-free 10-year survival rates were 97.7% and 84%. In 71 patients (26.8%) complete clinical response was observed following CRT (Observation group). Twenty-two patients (8.3%) showed incomplete clinical response and pT0N0M0 resected specimens (Resection group). There were no differences between patient's demographics and tumor's characteristics between groups. In the Resection group, 9 definitive colostomies and 7 diverting temporary ileostomies were performed. Mean follow-up was 57.3 months in Observation Group and 48 months in Resection Group. There were 3 systemic recurrences in each group and 2 endorectal recurrences in Observation Group. Two patients in the Resection group died of the disease. Five-year overall and disease-free survival rates were 88% and 83%, respectively, in Resection Group and 100% and 92% in Observation Group.

Conclusions: Stage 0 rectal cancer disease is associated with excellent long-term results irrespective of treatment strategy. Surgical resection may not lead to improved outcome in this situation and may be associated with high rates of temporary or definitive stoma construction and unnecessary morbidity and mortality rates.

(*Ann Surg* 2004;240: 711–718)

Multimodality approach is the preferred treatment strategy for distal rectal cancer, including radical surgery, radiotherapy and chemotherapy. A significant proportion of patients managed by surgery, performed according to established oncological principles, appear to benefit from chemoradiation (CRT) therapy either pre- or postoperatively in terms of survival and recurrence rates.

Preoperative CRT may be associated with less acute toxicity, greater tumor response/sensitivity, and higher rates of sphincter-saving procedures when compared with postoperative course.[1,2] Furthermore, tumor downstaging may lead to complete clinical response (defined as absence of residual primary tumor clinically detectable) or complete pathologic response (defined as absence of viable tumor cells after full pathologic examination of the resected specimen, pT0N0M0). These situations may be observed in 10% to 30% of patients treated by neoadjuvant CRT and may be referred as stage 0 disease.[3–5] Surgical resection of the rectum may be associated with significant morbidity and mortality, and in these patients, with significant rates of stoma construction.[6] Moreover, surgical resection may not lead to increased overall and disease-free survival in these patients. For this reason, it has been our policy to carefully follow these patients with complete clinical response assessed after 8 weeks of CRT completion by clinical, endoscopic, and radiologic studies without immediate surgery. Patients considered with incomplete clinical response are referred to radical surgery. Surprisingly, up to 7% of these patients may present complete pathologic response (pT0N0M0) without tumor cells during pathologic examination, despite incomplete clinical response characterized by a residual rectal ulcer.[7]

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Non-Operative Management - Brazillian Experience

- Patients with low rectal CA (0-7cm)
  - Treated with 5040cGy radiation over 6 weeks and 5 FU
  - Evaluated at 8 weeks post CRT
    - Clinical Exam
    - Proctoscopy
    - CT
    - EUS (select patients)
- Monthly Evaluations in patients with complete Response for 1 year

Non-Operative Management - Brazillian Experience

- Between 1991 and 2002, 265 patients treated with CRT
  - CR - n=71
  - Resection n=22/194 with T0N0M0 at surgery
    - 41% (9) APR
- Mean follow up 57.3 months (12-156)

Non-Operative Management - Brazillian Experience

	(OB) Observation Group	(R) Resection Group	*P*
Gender (M:F)	1.05	1.2	ns
Mean age	58.1 (35–92)	53.6 (25–73)	ns
Pre-CRT tumor size (mean)	3.6 cm (1–7)	4.2cm (2.5–7)	ns
Distance from AV (cm)	3.6 (0–7)	3.8 (2–7)	ns
T2	14 (19.7%)	1 (4.5%)	ns
T3	49 (69%)	19 (86.5%)	ns
T4	8 (11.3%)	2 (9%)	ns
N+	16 (22.5%)	6 (27.2%)	ns
Total	71	22	

AV, anal verge; F, female; M, male; ns, not significant.

Non-Operative Management - Brazillian Experience

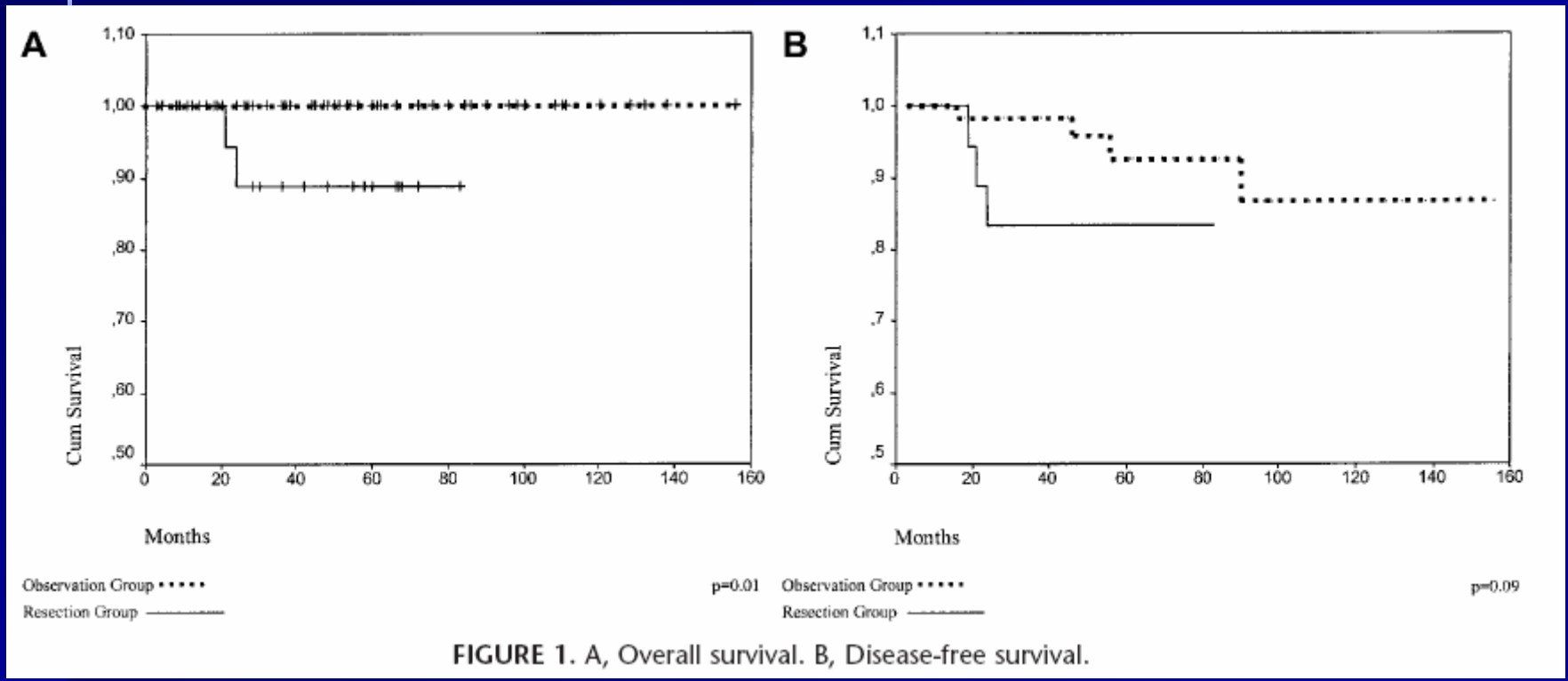


FIGURE 1. A, Overall survival. B, Disease-free survival.

10 year overall survival - 97%

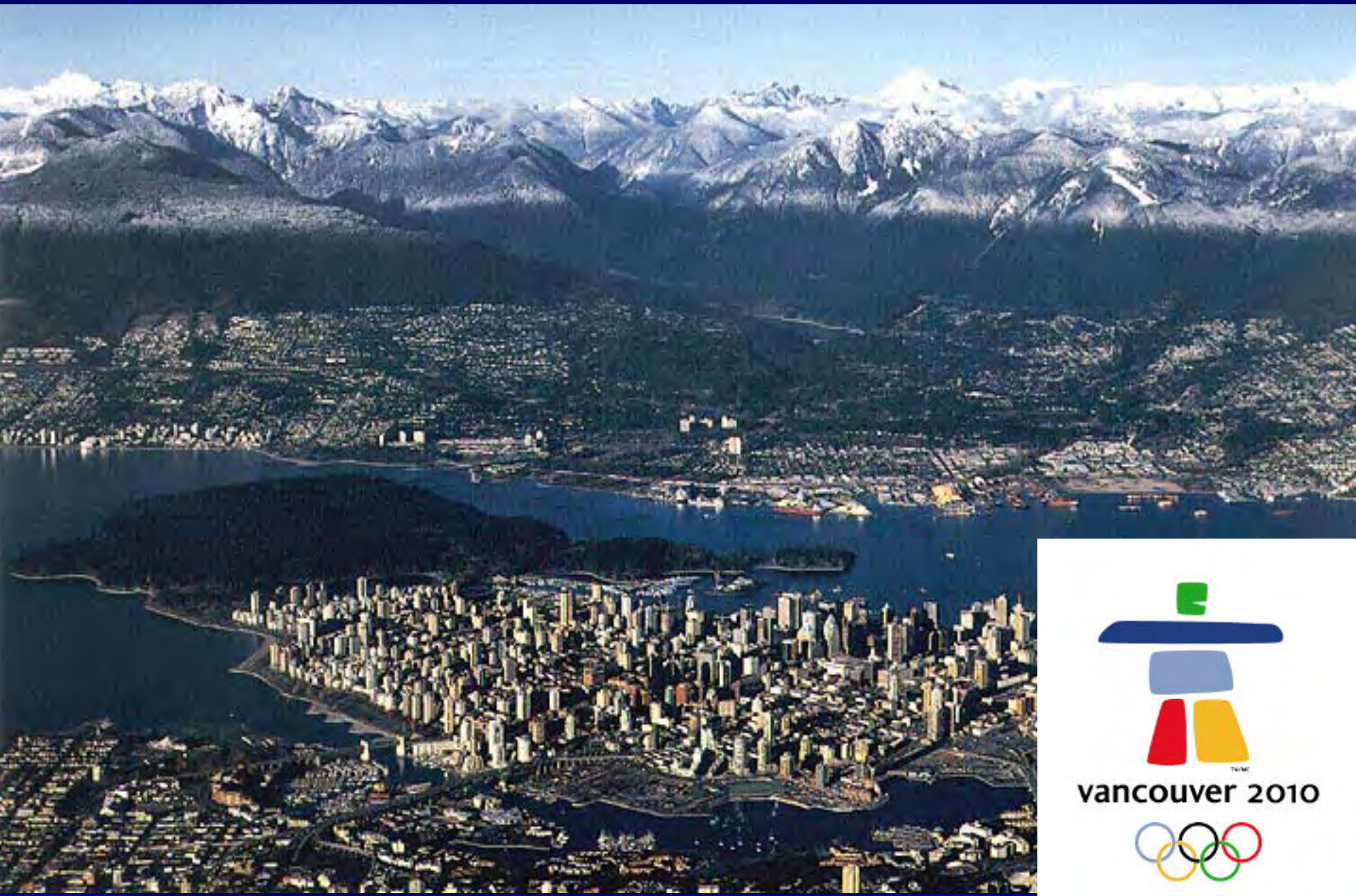
10 year disease free survival - 84%

Current Research

- Controlled Clinical Trials
  - Search “Rectal Cancer”
  - 0 results for non-operative mgmt

Conclusions

- Patients with rectal cancer treated with long course CRT can have complete regression of tumour
- Non-operative treatment is a viable option



vancouver 2010