



Outcomes of pelvic exenteration for locally advanced primary rectal cancer: Overall survival and quality of life

A.J. Quyn^{a,b}, K.K.S. Austin^{a,b}, J.M. Young^{b,c},
T. Badgery-Parker^{b,c}, L.M. Masya^a, R. Roberts^b,
M.J. Solomon^{a,b,*}

^a Department of Colorectal Surgery, Royal Prince Alfred Hospital, Sydney, New South Wales, 2050, Australia

^b Surgical Outcomes Research Centre, Royal Prince Alfred Hospital, Sydney, New South Wales, 2050, Australia

^c Cancer Epidemiology and Cancer Services Research, Sydney School of Public Health, Sydney, New South Wales, 2050, Australia

Accepted 11 February 2016

Available online 24 February 2016

Abstract

Introduction: Radical surgery with pelvic exenteration offers the only potential for cure in patients with locally advanced primary rectal cancer. This study describes the clinical and patient-reported quality of life outcomes over 12 months for patients having pelvic exenteration for locally advanced primary rectal cancer at a specialised centre for pelvic exenteration.

Methods: Clinical data of consecutive patients undergoing pelvic exenteration for locally advanced primary rectal cancer and patient-reported outcomes were collected at baseline, hospital discharge and at 1, 3, 6, 9 and 12 months. Patient-reported outcomes included cancer-specific quality of life (QoL) and physical and mental health status. Quality of life trajectories were modelled over the 12 months from the date of surgery using linear mixed models.

Results: 104 patients with locally advanced rectal cancer underwent pelvic exenteration at Royal Prince Alfred Hospital, Sydney, between December 1994 and October 2014. Complete soft tissue exenteration was performed in 38%. A clear margin was obtained in 86% with a 62% overall five-year survival. QoL outcome questionnaires were completed by 62% of patient cohort. The average FACT-C score returned to pre-surgery QoL by 2 months after surgery, and the average QoL continued to increase slowly over the 12 months.

Conclusion: Our results support an aggressive approach to advanced primary rectal cancer and lend weight to the oncological role of pelvic exenteration for this group of patients. Quality of life improves rapidly after pelvic exenteration for locally advanced primary rectal cancer and continues to improve over the first year.

© 2016 Elsevier Ltd. All rights reserved.

Keywords: Quality of life; Rectal; Cancer; Pelvic exenteration

Introduction

Locally advanced rectal cancer that adheres to or invades adjacent organs is not uncommon and accounts for approximately 25% of all primary rectal cancers diagnosed in Australia.¹ Advanced primary cancer of the pelvis is a devastating disease characterized by severe pain from

bone, muscle or nerve invasion, as well as bladder and bowel problems, and renal failure from ureteric obstruction.² Left untreated the prognosis is poor with median survival of less than 1 year and 5% 5-year survival.^{3,4} Chemoradiotherapy can improve survival by 10–15 months and may be used to palliate symptoms.^{5,6} However, radical pelvic exenteration with a clear resection margin (R0) is the only potentially curative treatment option for this group of patients.

The evolution of pelvic exenteration surgery over the past decade has shown that this procedure can be done

* Corresponding author. Surgical Outcomes Research Centre, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia. Tel.: +61 2 9515 3200; fax: +61 2 9515 3222.

E-mail address: professor.solomon@sydney.edu.au (M.J. Solomon).

safely with acceptable morbidity and mortality in specialised centres.^{1,2,7,8} Understandably, with curative surgery of this magnitude, in addition to the oncological outcomes, focus has turned to quality of life (QoL) following surgery. Pelvic exenteration frequently results in the formation of a colostomy and urostomy. Together with prolonged hospital stay, associated complications and rehabilitation, these factors can be detrimental to patient's quality of life.^{9,10} However, experience has shown that it can be performed with good long-term quality of life in expert centres with a multi-disciplinary approach.¹¹ Reports have suggested that although pelvic exenteration is associated with an initial large fall in the QoL this rapidly returns to pre-operative levels with minimal pain at 12 months.^{11–13}

There is significant heterogeneity in the literature on pelvic exenteration. Few studies have focused solely on rectal cancer, and those that have, combined the results of locally advanced primary cancer and recurrent cancer. Unfortunately little is known about these very different patient groups. There is also significant heterogeneity in the range of T4 advanced primary rectal cancers being reported. This study sought to identify and describe the clinical outcomes and QoL for the first twelve months following pelvic exenteration for the more extreme end of the locally T4 rectal cancers; many of which had been referred and were previously deemed unresectable and provide data on overall long-term survival.

Methods

The study was conducted as part of a program of research exploring clinical and patient-reported outcomes in pelvic exenteration surgery in Australia. Data were pooled from both a quality of life study of pelvic exenteration patients as well as a prospective pelvic exenteration clinical database. Prospective quality of life trajectories were obtained for 64 patients (62%).

Consecutive patients referred for pelvic exenteration surgery for locally advanced rectal cancer involving contiguous organs and/or the pelvic side-wall structures to an Australian tertiary hospital and largely a single surgeon (MJS), over a twenty year period (1994 to October 2014) comprised the study sample. Only those who underwent operation were included in our analysis.

Definition of pelvic exenteration

In broad surgical anatomy the five pelvic compartments¹⁴ can be best understood by their central points with some degree of overlap of their peripheries. The anterior is the urethra, axial the tip of the coccyx, posterior is the third sacral vertebra and lateral the ischial spine. A pelvic exenteration for primary rectal cancer was defined as the resection of the primary tumour, two or more complete adjacent organs and/or major bone or neurovascular structures but involving a minimum of three of the five pelvic compartments. A

complete soft tissue exenteration was defined as removal of the primary tumour (with or without attached bone and neurovascular structures) with all remaining pelvic viscera involving all five anatomical compartments of the pelvis.¹⁴

Excluded from our analysis were extended resections. These were defined as resection of the primary tumour with excision of the attached organ involving two or less pelvic compartments (e.g. partial cystectomy, hysterectomy, vaginectomy).

Quality of life assessment

All patients were aged 18 years and over. Detailed methods regarding recruitment and data collection for the quality of life data have been published previously and funded in part through the Priority-Driven Collaborative Cancer Research Scheme by Cancer Australia and The Cancer Council Australia (ID 570860) and approved by the Sydney Local Health District Human Research Ethics Committee.¹¹ To briefly recap, quality of life data were collected pre-operatively, prior to discharge from hospital and then at 1, 3, 6, 9 and 12 months post discharge. Patients completed the Short Form 36 version 2 (SF-36v2, Australian English; QualityMetric, Lincoln, Rhode Island, USA), a well validated, multipurpose, generic health status measure. The SF-36v2 is a broad measure compared to other disease-, treatment- or symptom-specific outcome tools. It provides two summary scales (physical component summary (PCS) and mental component summary (MCS) scales) with an additional eight domain-specific subscales. Patients also completed the Functional Assessment of Cancer Therapy – Colorectal (FACT-C), a widely used, validated and reliable cancer-specific quality of life instrument that comprises 27 items pertaining to physical, social, emotional and functional well-being, and includes a further ten items specific to colorectal cancer, including bowel function, appetite, digestion and stoma concerns.

Trajectories

QoL scores were modelled over the 12 months from the date of surgery using linear mixed models. To allow for the nonlinearity in the trajectories, piecewise linear models were used, with knots pre-specified at 2 months (after initial recovery from surgery) and at 7 months when the trajectories tended to flatten out,¹¹ and an indicator for the pre-discharge assessment. Random effects by patient with unstructured correlations were included. The trajectories were modelled and graphed using R 3.1.1 (www.r-project.org).

Statistical analysis

30-day mortality, length of stay and post-operative complications were determined. Overall survival was estimated using the Kaplan–Meier method. Overall survival was

Download English Version:

<https://daneshyari.com/en/article/3984540>

Download Persian Version:

<https://daneshyari.com/article/3984540>

[Daneshyari.com](https://daneshyari.com)