

# RECTAL CANCERS IN THE ELDERLY – LESSONS LEARNED

**Ganessan Kichenadasse, Amanda Townsend and Timothy Price**

Department of Haematology/Oncology, The Queen Elizabeth Hospital, Woodville, South Australia

Email: Ganessan.Kichenadasse@gmail.com

## Abstract

Current cancer care, especially rectal cancer, requires the use of a multidisciplinary team approach, including a surgeon, medical oncologist, radiation oncologist and several other allied health specialities. Elderly patients with rectal cancer add another dimension to this complex picture due to the higher frequency of co-existing medical problems. Several studies indicate that carefully selected elderly patients derive equal benefit from appropriate anti-cancer treatment as younger cancer patients. However, this review of the published literature from Australia suggests that the care of rectal cancer, especially in the elderly, requires considerable attention in order to improve their outcomes.

## Elderly and rectal cancers

Ever-improving life expectancy and better cancer related outcomes are not uniformly seen in all Australians diagnosed with cancer. There is a disparity in cancer outcomes in some select populations including adolescents, young adults, the elderly, those from rural areas and the Indigenous population. In line with the focus of this issue of *Cancer Forum* we discuss the management of rectal cancers in the elderly with an Australian perspective.

Colorectal cancer is the second most common cancer in Australia and the second leading cause of cancer death.<sup>1</sup> With a rapidly increasing older population and an increasing total number of diagnosed cases of colorectal cancer, elderly cancer patients will become the majority of patients we will see in the future. The approach to the management of elderly patients is more complex, given the high frequency of co-existing medical illnesses and frailty, which are perceived to be a deterrent for administering appropriate anti-cancer therapy.

The management of rectal cancer requires a multidisciplinary approach in all patient groups, using the expertise of all oncology specialties including surgical, medical and radiation oncology. Elderly patients with rectal cancer require further input from a geriatrician and several other supportive allied health units. In this article, we highlight the complexities involved in the care of the elderly with rectal cancer, discussing data recently presented at the Clinical Oncological Society of Australia's Annual Scientific Meeting, based on our experience at a single institute in South Australia with reference to previously published literature.

Octogenarians and nonagenarians constitute a very special population among the elderly who require extra attention for their care. They are more often fragile with multiple co-morbidities than those who are younger. This population is one of the under-served in all spheres of their cancer care. Previously published patterns of care studies indicate that the elderly are less likely to receive the recommended standard of care.<sup>2,4</sup> This is well documented, despite evidence that radical surgery,

radiotherapy and chemotherapy can be safely administered in carefully selected older individuals. There may be an argument that the elderly have a shorter life expectancy and are unlikely to benefit from adjuvant therapy. However, most rectal cancer recurrences occur within the first three to five years and death related to systemic recurrence is seen in a significant proportion of patients. Men and women who reach 80 years may expect a further five and seven years of life respectively, the majority being disability free. So, appropriate adjuvant therapy can potentially improve cancer related outcomes even those who are older than 80 years of age.

## Audit at the Queen Elizabeth Hospital

We performed an audit of newly diagnosed patients of rectal adenocarcinoma aged 80 years and older between the years 1998 and 2006 at the Queen Elizabeth Hospital, South Australia. This audit was conducted with the aim of establishing the pattern of care of the elderly with rectal cancer at our centre. All such patients were discussed in a fortnightly, multidisciplinary team meeting involving colorectal surgeons, medical oncologists, radiation oncologists, radiologists, pathologist and a stoma therapist nurse to decide upon the best recommended plan of treatment. Of note, there was no geriatrician involved at any stage of the treatment decision. As one would expect, the attending primary physician/surgeon then discussed with the patients the recommended treatment and proceeded accordingly.

We identified 55 eligible patients who were over 80 years of age with a new diagnosis of rectal adenocarcinoma. The median age was 84 years (range: 80-93 years) with 60% males. Most were less than 90 years with only seven (12.7%) being nonagenarians. Staging results were Astler-Coller's<sup>5</sup> Dukes A 16.3%, Dukes B 36.3%, Dukes C 30.9% and Dukes D 14.5%. We were able to obtain pathological staging in 45 who had curative surgical resection. The majority were T3 (52.8%) and T4 in 24.5%. Pathological tumour grading indicated that 80% had average differentiation while 15% had poor differentiation. The median number of

nodes removed was only eight (range 0-25), which was important given the evidence of an association between node harvest number and outcome.<sup>6</sup>

Curative or palliative surgery was performed in 48 (87.2%) patients, while the remaining patients had a diagnostic biopsy alone. Curative surgery, including anterior resection or abdomino-perineal resection, was performed in 26 (47.2%) and 12 (21.8%) patients respectively. Defunctioning colostomy was the most common palliative surgery (10.9%) and local excision alone was done in 5.4%. The median hospital stay for those patients in our group who had surgery was 18.5 days (range: 6-42 days). Post-operative mortality (death within 12 weeks of surgery) was 16.6%; and a number of patients were noted to have major medical events, such as acute myocardial infarction, pneumonia, sepsis, stroke, pulmonary embolism and acute renal failure, complicating their post-operative course in the hospital and highlighting the need to assess older patients carefully before proceeding to surgical intervention.

There are accepted gains in outlook for patients with Dukes B and C pathology who receive pre-operative or post-operative radiotherapy, with or without chemotherapy.<sup>7</sup> In our patient group, there were 37 (20 Dukes B and 17 Dukes C) patients who were potential candidates for some form of adjuvant therapy. Among the Dukes B patients, 40% had either pre-operative or post-operative radiotherapy +/- chemotherapy (4 each). Of note, only one of the Dukes C received post-operative radiotherapy while 23.5% had post-operative radiotherapy/chemotherapy.

Where pre-operative therapy was given, long-course radiotherapy with concurrent chemotherapy was given in the majority in keeping with current practice. Two patients did receive high dose five-day pre-operative radiotherapy alone. Chemotherapy consisted of continuous infusion of 5-Fluorouracil (5FU) at 200 mg/m<sup>2</sup>/day during radiotherapy, again consistent with recommended dosing. This combined radiotherapy/chemotherapy appeared well tolerated in those patients selected for pre-operative therapy, although there was one recorded death due to complications from radiotherapy/chemotherapy. Those younger than 86 years of age were more likely to receive radiotherapy/chemotherapy irrespective of their stage.

We explored the decisions for the 37 patients who were eligible for adjuvant therapy. The multi-disciplinary team meeting recommended adjuvant therapy for only 20 patients, with the remaining perceived either to be unfit for adjuvant therapy or the benefit too small. Among those who were recommended to have further therapy, 12 proceeded with the recommended therapy and five died in the post-operative period. Only three refused to have further treatment.

## Discussion

In the previously published study from South Australia, patients not treated surgically tended to be aged 80 years or more.<sup>8</sup> This trend seems to have changed in more recent years (1980-1986 v/s 1995-2002). The National Colorectal Cancer Care Survey reported that nearly 82% of the newly diagnosed colorectal cancers in

all age groups underwent curative resections nationwide in Australia.<sup>9</sup> In this study, which included patients from the last decade, it appears that the majority (70%) of the elderly do undergo curative surgical therapy for their rectal cancers. This is most likely related to the improvement in the supportive care available for the care of these patients. It appears that elderly patients can undergo surgery relatively safely with an acceptable post-operative complication rate. Surgery for rectal cancer should not be restricted based on age.<sup>10</sup>

The use of adjuvant therapy for colorectal cancer varies substantially by age, race, marital status, hospital volume and individual hospital, indicating opportunities to improve care.<sup>3</sup> Previously published studies from Australia indicate that the elderly do not receive the recommended adjuvant therapy more often than their younger counterparts.<sup>11,12</sup> In a review from New South Wales, only 60% received the recommended radiotherapy and older patients were less likely to receive any adjuvant therapy.<sup>11</sup> The utilisation rates of radiotherapy remain low, especially among the elderly, and those not seen by a surgeon with a higher caseload.<sup>12</sup> In the current report, 60% of Duke B and 30% of Duke C received adjuvant therapy. The proportion who received the recommended radiotherapy/chemotherapy seems to decrease with increasing age.

There appears to be several physician and patient factors involved in the decisions regarding adjuvant therapy for the elderly with rectal cancers. Lack of referral to the oncologist and patient refusal appear to be important reasons for patients not receiving the standard adjuvant therapy.<sup>13</sup> As seen in our audit, contrary to popular belief patient refusal is an uncommon reason for not having adjuvant therapy.

Using the Surveillance, Epidemiology and End Results (SEER) data, Luo et al reported that only half of patients older than 85 years with Dukes C colon cancer saw a medical oncologist, and those who met a medical oncologist were 10 times more likely to get adjuvant therapy, highlighting the need for a complex interdisciplinary approach in treating such patients.<sup>14</sup> In the current study, although patients were discussed in the multi-disciplinary team meetings, they were not directly involved in the decisions. If the team decided against recommending adjuvant therapy due to perceived lack of benefit or severe co-morbidities, they were not referred to a medical oncologist. These decisions were made ad hoc rather than using evidence-based approach of comprehensive geriatric assessment. It may be useful to involve a geriatrician for all multi-disciplinary team discussions involving elderly patients. Individualised treatment decisions will be of critical importance in this group of patients.

## Conclusions

We conclude that all patients should receive the most intensive treatment thought to be effective and safe according to their age and co-morbidities, as data on survival and the toxicity profile of treatment is not different from the younger age group.<sup>15</sup> Increasing the

use of appropriate adjuvant therapy should be a priority, especially among older people, as mortality appears to decrease among those who receive therapy based on current guidelines. With appropriate patient selection, rectal cancers appear to be cured even in those who are older than 80 years of age.

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