J COLOPROCTOL (RIO J). 2016;xxx(xx):xxx–xxx

Journal of Coloproctology

www.jcol.org.br

Original Article

Rectal cancer survival in a Brazilian Cancer Reference Unit

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ARTICLE INFO

Article history:
Received 4 April 2016
Accepted 25 April 2016
Available online xxx

Keywords:
Colorectal cancer
Surgery
Survival

ABSTRACT

Colorectal cancer is one of the most common malign tumors in men and women all over the world. In spite of prevention advances in the last few years, worldwide incidence remains significant, about one million per year.

Objectives: Evaluate rectal cancer survival in patients diagnosed and surgically treated at the Cancer Reference Unit at Rio Grande do Norte State, Brazil.

Methods: Observational retrospective study composed by 135 patients assisted from 2007 to 2014 at Doctor Luiz Antonio Hospital, Natal, Brazil. Data were collected from the patient records revision and survival rates were calculated and analyzed by non-parametric Kaplan–Meier and Wilcoxon tests, respectively. All patients were submitted to surgical treatment, chemotherapy and/or radiotherapy.

Results: Overall survival was 62% in seven years, while disease-free survival in one, three and five years was 91.7%, 75.5% and 72.1%, respectively.

Conclusion: Overall survival and disease-free survival remained enhanced until the end of the study, suggesting that the treatment protocols used in the institution have shown to be effective.

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http://dx.doi.org/10.1016/j.jcol.2016.04.015

Please cite this article in press as: Corrêa RS, et al. Rectal cancer survival in a Brazilian Cancer Reference Unit. J Coloproctol (Rio J). 2016. http://dx.doi.org/10.1016/j.jcol.2016.04.015

Sobrevivência de câncer colorretal em uma Unidade de Referência do Câncer

Palavras-chave:
Câncer colorretal
Cirurgia
Sobrevida

RESUMO

O câncer colorretal é um dos tumores malignos mais comuns em homens e mulheres em todo o mundo. Apesar das melhorias na prevenção nos últimos anos, a incidência global ainda é expressiva, cerca de um milhão por ano.

Objetivos: Avaliar a sobrevida do câncer de reto nos pacientes diagnosticados e tratados cirurgicamente na Unidade de Referência do Câncer no Rio Grande do Norte, Brasil.

Métodos: Estudo observacional retrospectivo composto por 135 pacientes, compreendido no período de 2007 a 2014 no Hospital Dr. Luiz Antônio, Natal, Brasil. Os dados foram coletados através da revisão de prontuários e as sobrevidas foram calculadas e comparadas utilizando, respectivamente, os métodos não-paramétricos de Kaplan-Meier e teste de Wilcoxon. Todos os pacientes foram submetidos a tratamento cirúrgico, quimioterápico e radioterápico.

Resultados: A sobrevida global foi de 62% em sete anos, sendo a sobrevida livre de doença em um, três e cinco anos de 91,7%, 75,5% e 72,1%, respectivamente.

Conclusão: As sobrevidas global e livre da doença são elevadas até o encerramento do estudo, o que demonstra que os protocolos de tratamento utilizados na instituição têm se mostrado eficazes.

Introduction

Colorectal cancer (CRC) is one of the most common malign tumors in men and women all over the world. In spite of prevention advances in the last few years, worldwide incidence remains significant (about one million per year). CRC causes more than 500,000 deaths per year and is the third most common cause of cancer-related deaths.

Brazilian National Cancer Institute estimates for the year of 2016 in Brazil 16,660 newly diagnosed cases of CRC in men and 17,620 in women.[1]

In a regional perspective, excluding non-melanoma skin tumors, CRC is the fourth most frequent in men in Brazilian Northeast (5.34/100,000). For women, is the third most frequent in the same region (8.77/100,000).[2]

Many risk factors could contribute to the development of CRC, as age, diet, genetic factors, predisposing medical conditions and tobacco. People with more than 40 years age have higher risk of CRC development, with a peak at 65 years age in United States. Occidental diet is also a risk factor for colon carcinoma due to the high intake of animal fat, exposing colonic mucosa to high levels of carcinogenic compounds. The occidental low fiber diet also promotes a low intestinal transit, which increases the exposition time to colonic carcinogenic.[3] Considering genetic factors, susceptibility to CRC includes well-defined hereditary syndromes, as Lynch Syndrome often called hereditary non polyposis colorectal cancer (HNPCC) and Familial Adenomatous Polyposis (FAP). Therefore, it is recommended that family history of CRC patients should be consulted and considered in a risk evaluation.[4]

A variety of surgical approaches, considering location and extension of the disease, are used to treat the rectal cancer primary lesions. These methods include local procedures, as polypectomy, transanal excision and transanal endoscopic microsurgery, and more invasive procedures involving transabdominal resection (for example, low anterior resection, proctectomy with total mesorectal excision and coloanal anastomosis or abdominoperianal resection).[4]

Therapy for stage II (T3-4 disease, without lymph node involvement) or for stage III (positive lymph node without distant metastasis) rectal cancer often include multimodal treatment with an association of neoadjuvant/adjuvant chemotherapy due to the high risk of locoregional recurrence. This risk is associated with the rectum proximity to pelvic structures and organs, the absence of serous around the rectum and the technical difficulties in having wide surgical resection margins.[4]

Survival is an essential part in the study of patients submitted to colorectal cancer treatment. Statistical analysis as survival analysis refers to the study of data related to the time of the event of interest. In other words refers to the time between one initial event when one patient or object starts one specific stage and a final event, when this stage is changed. This time is named life time or failure time and could be since death as a consequence of disease or a time until one relapse event.[5]

About 50–60% of CRC patients will develop metastasis and 80–90% of them will develop resectable metastatic liver disease. Metastatic disease frequently develops in a metachronic way after locoregional colorectal cancer treatment and liver is the most common organ involved.[4]

TMN staging is an important prognostic factor in CRC.[6] It describes the degree of tumor spread or invasion to nearby tissues, involvement of regional lymph nodes and presence of metastasis. In 1930, Dukes[7] demonstrated that ganglion metastasis presence represents an important prognostic factor related to recurrence and survival. Since then, screening of

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