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Oncological Results According to Type of Resection for Rectal Cancer☆

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ABSTRACT

Objective: This multicentre observational study aimed to compare outcomes of anterior resection (AR) and abdominal perineal excision (APE) in patients treated for rectal cancer.
Methods: Between March 2006 and March 2009 a cohort of 1598 patients diagnosed with low and mid rectal cancer were operated on in the first 38 hospitals included in the Spanish Rectal Cancer Project. In 1343 patients the procedure was considered curative. Clinical and outcome results were analysed in relation to the type of surgery performed. All patients were included in the analysis of clinical results. The analysis of outcomes was performed only on patients treated by a curative procedure.
Results: Of the 1598 patients, 1139 (71.3%) were underwent an AR and 459 (28.7%) an APR. In 1343 patients the procedure was performed with curative intent; from these 973 (72.4%) had an AR and 370 (27.6%) an APR. There were no differences between AR and APR in mortality (29 vs 18 patients; P=.141). After a median follow up of 60.0 [49.0–60.0] months there were no differences in local recurrence (HR 1.68 [0.87–3.23]; P=.12) and metastases (HR 1.31 [0.98–1.76]; P=.064). However, overall survival was worse after APR (HR 1.37 [1.00–1.86]; P=.048).
Conclusion: This study did not identify abdominoperineal excision as a determinant of local recurrence or metastases. However, patients treated by this operation have a decreased overall survival.

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◇ Further information on the participants in the Rectal Cancer Project of the Spanish Association of Surgeons is available in Appendix A.

Resultados oncológicos según el tipo de resección en el tratamiento del cáncer de recto

Palabras clave:
Cáncer de recto
Amputación abdominoperineal
Recidiva local
Metástasis
Supervivencia global

RESUMEN

Introducción: El objetivo de este trabajo observacional multicéntrico ha sido comparar los resultados de la resección anterior (RA) y la amputación abdominoperineal (AAP) en el tratamiento del cáncer de recto.

Método: Entre marzo de 2006 y marzo de 2009, 1.598 pacientes diagnosticados de un tumor del tercio medio o inferior de recto fueron operados en los primeros 38 hospitales incluidos en el Proyecto del Cáncer de Recto de la Asociación Española de Cirujanos. La cirugía se consideró curativa en 1.343 pacientes. Los resultados clínicos y oncológicos se analizaron con relación al tipo de resección. Todos los pacientes fueron incluidos en el análisis de los resultados clínicos; para el análisis de los resultados oncológicos solo se consideraron los pacientes con operaciones curativas.

Resultados: En 1.139 (71,3%) de los 1.598 pacientes se practicó una RA y en 459 (28,7%) una AAP. De los 1.343 pacientes operados con intención curativa, en 973 (72,4%)se practicó una RA y en 370 (27,6%) una AAP. No hubo diferencias entre RA y AAP en la mortalidad operatoria (29 vs. 18 pacientes; p = 0,141). Con un seguimiento de 60.0 (49,0–60,0) meses no se encontraron diferencias entre ambas operaciones en la recidiva local (HR 1,68 [0,87–3,23]; p = 0,12) ni en las metástasis (HR 1,31 [0,98–1,76]; p = 0,064). Sin embargo, la supervivencia global fue menor con la AAP (HR 1,37 [1,00–1,86]; p = 0,048).

Conclusión: Este estudio no ha identificado la AAP como factor determinante de recidiva local ni de metástasis, pero sí de la disminución de la supervivencia global.

Introduction

In the mid and low rectal cancer surgery, sphincter-preserving surgery is the most widely used option.[1,2] However, there are patients in whom this option is not possible because they present bulky, locally advanced or very low tumours. In addition, there are patients whose defecatory function is expected to be inadequate if continuity is restored. In such situations, the conventional abdominoperineal resection (APR), originally described with the resection of the levator ani, is indicated mainly in tumours of the lower third.[3,4]

Although these surgical procedures are not directly comparable, some studies show that patients treated by APR have a worse prognosis than those treated by anterior resection (AR).[5,6] However, other studies indicate that there are no differences,[7–10] or that, at least, local recurrence rates are similar in both procedures.[11]

The different oncological outcomes may have a multifactorial origin, depending on patient and tumour characteristics,[12] and also on the surgical technique used,[13] especially if APR is performed in a synchronous manner.[14] Based on the above, there is no evidence yet that APR, in itself, has worse oncological outcomes than AR.

The purpose of this observational study, conducted within the framework of the Rectal Cancer Project of the Spanish Association of Surgeons has been to analyse the differences in the results of both types of surgery.

Material and Methods

This multicentre observational study has been conducted within the framework of the Rectal Cancer Project of the Spanish Association of Surgeons. This teaching initiative was begun in 2006 with the intention of teaching mesorectal excision surgery to multidisciplinary groups of surgeons, pathologists and radiologists from hospitals belonging to the public health system that treat rectal cancer. A more detailed description of it has been recently published.[15]

This cohort includes 1598 patients diagnosed with low and mid rectal cancer, treated either by conventional APR or AR, between March 2006 and March 2009, in the first 38 hospitals included in the project. Surgery was considered potentially curative in 1343 patients, who underwent a locally radical procedure (R0 and R1), with tumour-free margins or microscopic invasion of them, in the absence of metastasis. Follow-up was performed until March 2014.

All the patients presented a rectal adenocarcinoma located between 0 and 12 cm from the anal margin, as measured by rigid rectoscopy during removal of the rectoscope, or, mainly, by magnetic resonance imaging (MRI).[16] Due to the small number of patients with an emergency operation (5), these were not included in any analysis. Neoadjuvant therapy, generally long-course chemoradiotherapy, was administered routinely to patients with stages II and III. The usual contraindications of this treatment were the following: advanced age, ischaemic heart disease and previous pelvic radiotherapy.