

Total mesorectal excision with radiofrequency in rectal cancer: open vs laparoscopy approach

S. SCABINI, E. RIMINI, E. ROMAIRONE, R. SCORDAMAGLIA, D. PERTILE, V. FERRANDO

U.O. Chirurgia Oncologica e dei Sistemi Impiantabili
(Chief: Prof. V. Ferrando)
A.O.U. S. Martino, Genova, Italia

SUMMARY: Total mesorectal excision with radiofrequency in rectal cancer: open vs laparoscopy approach.

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To compare the safety, efficacy and oncologic results in the low rectal resection with total mesorectal excision with radiofrequency (Ligasure®) in laparoscopic surgery. 227 patients underwent colo-rectal resection for cancer at our Hospital. 61 patients were submitted to curative rectal resection for mid or low rectal cancer using Ligasure® device applied on smaller vessels and on execution of total mesorectal excision. 46 patients underwent open laparotomy (OP), 15 laparoscopic surgery. The mean operative times were shorter in group OL (188 vs 246 min) overall. This difference was significative (p = 0.004). We analysed in particular two parameters of specimens: the total number of nodes and distal clearing from cancer. the Ligasure device does not reduce operating time in laparoscopy rectal cancer resection but it allows to get correct oncologic results in patients submitted to total mesorectal excision.

KEY WORDS: rectum, cancer, TME, laparoscopy.

Purpose

To compare the safety, efficacy and oncologic results in the low rectal resection with total mesorectal excision with radiofrequency (Ligasure®) in open vs laparoscopic surgery.

Methods

From July 2005 to December 2008, 227 patients underwent colo-rectal resection for cancer at our Hospital. 61 patients were submitted to curative rectal resection for mid or low rectal cancer, using Ligasure®

device applied on smaller vessels and on execution of total mesorectal excision. 46 patients underwent open laparotomy (OL), 15 laparoscopic surgery (VL). There were no differences in patients considering demographics data and diagnosis, but only in staging of the disease (p 0.009). Primary goal was to evaluate major complications, operating time, hospital stay, distal margin of the tumour and number of nodes harvested in specimen. Second, the average time of survival.

Results

The mean operative times were shorter group OL (188 vs 246 min) overall. This difference was significative (p = 0.004). With the pathologist we analysed in particular two parameters of specimens: the total number of nodes and distal clearing from cancer, excluding abdominoperineal resection. Regarding linfoadenectomy, we observed an average number of 16.6 nodes in group OL and 13.9 in group VL (p ns); mean distal clearing in group OL was 30.7 mm, in group VL 48.1 (p = ns). There were no differences of major complications in either group. The hospital stay in group VL was shorter than group OL, but the differences were not significative.

Conclusions

The Ligasure device does not reduce operating time in laparoscopy rectal cancer resection but permit correct oncologic results in patients submitted to total mesorectal excision.

Correspondence to:
Dott. Stefano Scabini
Salita della Madonnetta, 20/10 - 16136 Genova, Italia
E-mail: stefanoscabini@libero.it

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