Long term follow-up of the mrc conventional versus laparoscopically assisted resection in colorectal cancer trial

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Introduction: Laparoscopic resection is widely used in the management of colorectal cancer; however there is limited data regarding long-term outcomes, particularly regarding rectal cancer. This study presents the long-term follow up of the MRC-CLASICC trial of conventional versus laparoscopic surgery in the treatment of colorectal cancer.

Methods: A total of 794 patients from 27 UK centres were randomised to laparoscopic or open surgery in a 2:1 ratio between 1996 and 2002. Long-term follow-up data involving intention-to-treat and actual treatment groups was analysed to determine differences in survival outcomes and recurrences. Survival and recurrence data were compared using Kaplan-Meier and cumulative incidence function curves respectively, and tested using log-rank and Wilcoxon rank-sum tests.

Results: Median follow-up of all patients was 62.9 (IQR: 22.9-92.8) months. For all patients median OS was 85.1 (95% CI 72.7-105.7) and 73.6 (95% CI 64.3-89.5) months, whereas DFS was 94.8 (95% CI 74.2-108.7) and 70.6 (95% CI 55.0-85.5) months for colon and rectal cancer respectively, with no difference by randomised procedure for either OS (P=0.78) or DFS (P=0.59). Colon cancer patients experienced significantly worse OS (P=0.0005) and DFS (P=0.0068) following conversion. No significant difference in recurrences were observed by randomised procedure; however at 10 years right-sided local recurrence was increased (14.7%) compared to left-sided (5.2%), P=0.019. Rectal cancer patients experienced significantly improved early survival with laparoscopic surgery, Wilcoxon P=0.0071.

Conclusions: Long-term results continue to support the use of laparoscopic surgery for colon and rectal cancer. Trends in local recurrence warrant further investigation.

Take-home message: Laparoscopic surgery is a safe alternative to conventional open surgery in the treatment of both colon and rectal cancer in suitable patients.