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Laparoscopic Surgery for Rectal Cancer

The recent publication of two randomised trials comparing laparoscopic assisted resection with open resection for rectal cancer have given colorectal cancer surgeons serious food for thought. On the 6th of October this year the Journal of the American Medical Association published the short term outcomes from the American ACOSOGZ6051 Trial and the ALaCart Trial from Australia. A successful resection was defined as a complete total mesorectal excision with a clear circumferential margin and a clear distal resection margin, and in both trials successful resection was achieved more frequently with open resection than laparoscopic resection. Although these differences were not statistically

significantly different, it was not possible in either trial to demonstrate non-inferiority. In neither trial was there a significant difference between the two approaches in hospital stay, and in both trials operating time was longer in the laparoscopic group. Blood loss, however, was higher in the open group.

The authors of both trials conclude that the findings do not support the use of routine laparoscopic resection in patients with rectal cancer. These results may be seen as a setback for laparoscopic enthusiasts and as justification for the view that rectal cancer surgery should be performed by open operation. However, there are some important caveats. Firstly, although the short term outcomes of the laparoscopic surgery in these trials was slightly inferior to those of open surgery, the quality in both arms of both studies was extremely high and we have no data



on the long term oncological outcomes. Secondly, the surgeons in the Australian paper were only required to have done 30 rectal cancers laparoscopically and the surgical volume criteria in the American study were not stated. There is now emerging evidence that the best outcomes from laparoscopic rectal surgery in terms of both complications and oncological outcomes can only be achieved after an experience of more than 100 cases. It could be argued, therefore, that the surgeons participating in these two trials had not achieved optimal volume by current standards.

It must also be remembered that oncological outcomes are not the only issue when comparing laparoscopic and open surgery; readmission and reoperation for adhesive intestinal obstruction and incisional hernia are other outcomes that will have a bearing on the choice of surgical approach.

It is fair to say that, as a result of these two trials, the jury is still out on the role of laparoscopic surgery for rectal cancer. These trial results have been brought to the attention of NICE who are currently carrying out their four-year guideline surveillance. Two things are certain

however. Firstly, there is no place for occasional laparoscopic rectal cancer surgery and it is clear that this procedure should be concentrated in high volume centres. Secondly, surgeons who employ open surgery for rectal surgery can hold their heads high. They should not, however, dismiss laparoscopic rectal cancer surgery as there is no doubt that extremely high quality outcomes can be achieved, and the development of minimally invasive surgery remains a key priority in colorectal surgical practice

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