I don’t think we need randomized trials to assess colorectal cancer surgical procedures

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This is a summary of a methodological comparison between the results of meta-analyzing non-randomized comparative studies (NRCSs) & those of randomized controlled trials (RCTs) of surgical procedures using the example of laparoscopic (LR) vs Conventional Open Resection (COR) for colorectal cancer (CRC).

A low recruitment rate is the main threat to the validity of the results of surgical RCTs. We conducted a systematic review of reasons for non-entry of eligible patients into surgical RCTs. The most frequently reported reasons are presented. A number of studies reported systematic difference between patients enrolled in RCTs & those eligible but not recruited.

Reasons for non-entry of eligible patients into the ALCCaS trial were prospectively investigated for a period of 6 months in the fourth year of the study & are presented. This showed that 18% of surgeons accredited for the trial never recruited any patients. A further 29% had ceased to be involved. Only 45% of eligible patients seen by actively participating surgeons were recruited.

Two contemporaneous meta-analyses of LR vs. COR for CRC were conducted & their results directly compared. The first was a meta-analysis of 12 RCTs (2512 resections) & the second of 49 NRCSs (6438 resections). For all 13 variables common between the two meta-analyses, the results were impressively similar!

This research has shown methodologically & statistically that the results of meta-analyzing well designed NRCSs of a CRC surgical procedure were remarkably similar to that of contemporaneous RCTs. Further research is required but meta-analysis of surgical NRCSs may prove to be of great significance in evidence based surgery.

Biography

Ned Abraham is an Associate Professor of Surgery at the Faculty of Medicine, University of New South Wales, Australia. He graduated with Honours in 1986 and has since obtained the Degrees of a Master of Medicine and of a Doctor of Philosophy in Surgery from the University of Sydney. He is a Fellow of the Royal Australasian College of Surgeons and the Royal College of Surgeons of England. He trained at Royal Prince Alfred Hospital in Sydney then worked as the Surgical Superintendent of that hospital for three years attached to its Colorectal Unit. He is a practicing general and colorectal surgeon and endoscopist in Coffs Harbour, in northern NSW. He is also a Captain in the Australian Army Reserve and has served in Bougainville with the Peace Keeping Force. His main areas of interest are evidence based surgery, colorectal cancer surgery and capsule endoscopy.

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