Surgery for cancer: less and less for more and more patients

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Surgery is often forgotten about as a cancer treatment, where the public and the media focus on oncology treatment as drugs, radiotherapy or immunotherapy. Surgery however, is the most common cancer treatment and it has the best results. For about 70% of solid cancers, surgery offers the best (often the only) chance of survival and cure. Whereas, in most such situations, chemotherapy and radiotherapy are palliative or adjunctive.

Targeted therapies are currently popular with researchers. The ability of a drug to target a specific line of cells is sexy and appealing, offering a treatment adjunct where previously one may not have existed. What should not be forgotten, however, is that surgery is the most targeted therapy. It is adjustable and focused, with the ability to expand resection to include other organs if required, or reduce the surgery in older, less fit patients whose life expectancy is limited more by comorbidities and whose quality of life is paramount. Surgery is not undertaken alone but as part of a team management—the multidisciplinary team (MDT). Indeed, many cancers will receive surgery as part of the arsenal of available therapies.

The place of surgery is always changing and in many ways we are doing less and less for more and more patients. In a few cancers, surgery is no longer required, such as the role of diagnostic laparotomy with splenectomy and lymph node biopsy for staging in lymphoma, which in the last 20 years has moved from current practice to historical interest.

Anal cancers are now usually treated with radical chemoradiotherapy, leaving resection to patients who require salvage. For most patients the chemoradiation is not about better survival, it is about a better quality of life. Patients are more likely to avoid a permanent stoma/colostomy bag (and therefore are understandably assumed to have a better quality of life) with radical chemoradiation. The treatment is no less difficult for the patients, and based on today’s costs, surgery would be cheaper.

Current surgery techniques have changed considerably with most becoming less invasive, however in a few specific uncommon situations, more radical. Indeed, the minimally invasive techniques such as laparoscopic colectomy are becoming more common but the data around these changes needs to be continually assessed.

The largest Australasian surgery technique trial looked at laparoscopic colectomy and clearly showed that while these techniques are equivalent in oncological terms, laparoscopic surgery is expensive with the biggest gain being a relatively small reduction in hospital stay.

With breast cancer surgery, the combined effect of smaller screen-detected cancers and large outcome studies has increased the frequency of multiple smaller surgeries (such as biopsy, wide excision, lymph node sampling) in the treatment of a single patient’s cancer.
In other cancer surgery, such as recurrent rectal cancer, more radical surgery (extended resection) is now undertaken more safely and with improved outcomes, albeit in very selected patient groups.\textsuperscript{4}

Surgical techniques have not always lent themselves towards randomised controlled trials,\textsuperscript{5} and may at times be better assessed in prospective audits (the argument by surgeons being ‘who needs to randomise parachutes’).\textsuperscript{6}

The introduction of national cancer standards by the present New Zealand Government will hopefully lead to better outcomes for patients. The emphasis on these standards has generally been about MDTs, equity of treatment and outcome, and data collection; however, the standards look at all aspects of cancer treatment and outcome including surgery. The difficulty with the standards, regardless of funding, will be their practical implementation and working out just where this data is and whether it can be collected in a meaningful and cost-effective manner.

Oncological surgery in New Zealand needs better data, not just mortality and morbidity, but also who does not get an operation and why. With this information patients can get appropriate surgery as part of their multidisciplinary management.

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**References:**