Sphincter and nerve preserving total mesorectal excision

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The summer of 2002 has seen the introduction of two new key words in the literature on rectal carcinoma. The words are TME Workshop. Papers attesting to a major impact on rectal cancer outcomes in Norway, Sweden, and Holland, are the background to two major papers in the August British Journal of Surgery, one from Ireland and one from Sweden plus a leading article from a professor in Singapore entitled "Adjuvant therapy for rectal cancer cannot be based on the results of other surgeons".

Key words: TME workshop

INTRODUCTION

In his words "an obvious advantage of TME with its very low local recurrence rate is that its mastery usage may allow a surgeon to do away with routine peri-operative radiotherapy and its attendant complications", He states that the truth is that each surgeon must audit his or her own results and that medical and radiation oncologists must know these results before they can advise their patients appropriately. The author also points out that local recurrence is largely a failure of surgical technique. Surgical patients, unlike purely medical patients, cannot be properly counseled for or against adjuvant therapy based solely on the results of that particular trial which showed a significant result.

The feasibility of being selective in the use of radiotherapy was demonstrated recently by a visiting Canadian surgeon who analysed the results from our own unit in a random group of 150 consecutive referrals. This group had no exclusions and embraced the non-curable and palliative cases as well as those operated on with a prospect of cure. He sought to investigate how successful we had been using the clinical criteria of size fixation and distance from the anal verge in selecting the correct patients for preoperative radiotherapy. During this period fine slice MRI was beginning to be introduced and invasion or threatening of the mesorectal fascia on an MRI has now become our absolute indication for preoperative radiotherapy. Although most of the 150 cases predated this change the results are interesting. Only 35 out of 150 patients (23%) were selected for preoperative irradiation. In the 115 non-irradiated patients the local recurrence rate after a mean follow up of two years was 2.6% compared with the 17% who had been chosen for irradiation. More than half of those not irradiated were node positive and would almost certainly have been irradiated in most units around the world. Local recurrence for the whole group was 6%.

Dr Simunovic concluded that, if enough trouble is taken to perform careful TME surgery and to select carefully for preoperative irradiation more than of all patients can be managed by surgery alone.

The key realities that must now dominate our future thoughts on rectal cancer management are now focused on the embryological plane between the mesorectal visceral envelope (a hindgut structure embryologically) and the surrounding parietes. The fundamental importance of the workshops, which have had such a major impact in so many countries, is that surgeons can learn to follow this plane faithfully and to deliver a specific tissue block which is the caudal component of the hindgut with its visceral mesentery around it. This same holy plane can now be visualized before the operation by high quality fine slice MRI examinations. It is becoming increasingly clear that we need a pre-operative staging system, and that we need to plan adjuvant therapy in a selective manner based upon this staging system so that these therapies may be given before and not after surgery. Surgery should become the final episode in a planned management schedule and it must reach the very high standard of specimen oriented surgery in which the surgeon puts as his first priority the perfect excision of an intact mesorectal envelope. Furthermore it can avoid sphincter sacrifice in around 80-
90% (compared with the current 50%) of cases and it should also seek to preserve the autonomic nerves of sexual function which have so often been damaged by conventional abdominoperineal and anterior resection.

REFERENCES


