Controversies in rectal cancer

Rectal cancer remains one of the more challenging and controversial solid tumours to treat. The symposium in this issue discusses ongoing controversies in the management of rectal cancer and highlights presentations made at an Association of Coloproctology Chapter Meeting held at Mid Staffordshire NHS Foundation Trust in 2012.

The rectum is relatively inaccessible and 'gold standard' surgery has significant mortality and morbidity particularly with regard to functional consequences. In addition, radical surgery for low rectal cancer necessitates a permanent colostomy.

Thompson and Williams outline the different ways that rectal cancer can present as a small early tumour (the good), or as larger tumour (the bad) and finally as a locally advanced tumour involving surrounding structures (the ugly). They discuss inter-surgeon outcome variability and question 'Who should be treating rectal cancer in 2013?' A major advance in the management of the 'bad' rectal cancer occurred in the 1980s, pioneered by Professor Heald. This was understanding and appreciation of the importance of the fascial planes surrounding the rectum which led to the concept of total mesorectal excision – accurate dissection in the so-called 'holy plane' between the visceral fascia of the mesorectum and the parietal fascia overlying other pelvic wall structures. This approach has been adopted worldwide and is leading to reduced tumour local recurrence rates (below 10%) in many centres.

Radical surgery for low rectal cancer necessitates excision of the anal canal and formation of a permanent colostomy – abdomino-perineal excision. In the mid 2000s, it was recognized that abdomino-perineal excision had worse cancer results than total mesorectal excision, caused by higher rates of circumferential resection margin involvement, specimen perforation and the suboptimal total mesorectal excision quality of abdomino-perineal excisions. Dayal and Moran describe the development of the English National Low Rectal Cancer Development Programme (LOREC) which was initiated by the combined efforts of the UK Department of Health and the Association of Coloproctology of Great Britain and Ireland. The modern management of rectal cancer requires a multidisciplinary team of experts in colorectal surgery, oncology, pathology and radiology supported by specialist nurses and other health-care professionals. The programme is for all colorectal multidisciplinary team members and is organized and delivered by a group of national experts. It focuses on improving multidisciplinary team cooperation in recognizing the complexity of low rectal cancer when decision making preoperatively.

In a separate article, Dayal and Moran describe extra-levator abdomino-perineal excision (ELAPE) – an operation whereby the circumferential resection margins can be optimized by excising the levator muscles and the coccyx. The patient is usually turned prone in the middle of the procedure to minimize perforation of the resected specimen. The resultant perineal defect is then closed either with a biological mesh or a plastic surgical procedure.

Early rectal 'good' cancer can be treated by less invasive techniques. Journalist and patient Mark Davies describes graphically his abhorrence of colostomy and his patient journey to seek out and undergo local treatment of his rectal cancer. His book *Saving my Arse* (Davies, 2008) gives a humorous but serious account of his experience and, in my view, is a must for all health-care professionals involved in the management of rectal cancer. He describes clearly how his fear of the bag and surgery was greater than his fear of the cancer.

Local treatment techniques include both surgery and radio/chemotherapy and carry significantly reduced morbidity and almost zero mortality. Hershman et al describe minimally invasive techniques including transanal endoscopic microsurgery whereby small rectal tumours can be excised using specifically dedicated surgical instruments, avoiding external scars and the need for a stoma. Professor Myint describes contact or Papillon radiotherapy, a potentially curative technique which he has pioneered in the UK. Using Papillon radiotherapy, effectively 'radiotherapy on a stick', a high dose of radiation can be delivered directly to the rectal tumour. It is administered without the need for a general anaesthetic and is particularly helpful in our increasingly elderly population often with significant comorbidity.

In future, we will undoubtedly see increased use of all these techniques which will occur with better informed multidisciplinary teams and trained health-care professionals who will listen carefully and respond to patient choice and fears. **BJHM**

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Davies M (2008) *Saving My Arse: A Story of Cancers, Colons and Singapore Noodles.* www.savingmyarse.co.uk (accessed 20 June 2013)

KEY POINTS

- Rectal cancer remains a challenging solid tumour to treat. The 'gold standard' surgical treatment is total mesorectal excision.
- Low rectal cancer requires excision of the anal sphincters and permanent colostomy, and has a worse prognosis than upper rectal cancer, maybe because traditional resection is not radical enough for advanced disease.
- Extra-levator abdomino-perineal excision with excision of the coccyx and levator muscles may improve prognosis.
- Early rectal cancer may not require such radical treatment and can be treated by a multimodality approach which may include local excisional surgery, e.g. by transanal endoscopic microsurgery and/or contact radiotherapy (Papillon).
- Patients should be adequately informed of their options and their wishes respected.