Case report

Implantation anal metastases after out-patient treatment of haemorrhoids

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Viable exfoliated colorectal cancer cells may be implicated in some cases of suture line recurrence. Whether they can implant and grow on raw surfaces is debatable. Two cases of anal implantation metastases after out-patient haemorrhoidal treatment are described.

Key words: Implantation anal metastases – Haemorrhoidal sclerotherapy and banding

The potential of exfoliated colorectal cancer cells to form implantation metastases has been well studied.¹ A classical, but rare, example is the development of anal metastases on the haemorrhoidectomy wounds in patients with pre-existing occult colorectal cancer.² Other examples of implantation metastases in patients with colorectal cancer have been described in colonoscopy biopsy sites well away from the primary tumour,³ and in patients with pre-existing fistula-in-ano.⁴ We report two cases of anal implantation metastases after out-patient treatment of haemorrhoids.

Case report 1

A 74-year-old woman presented with a 6-month history of mixed bright/dark red rectal bleeding. Rectal examination which consisted of digital, proctoscopic and limited (to 12 cm) rigid endoscopy revealed fleshy haemorrhoids but no other pathology. The haemorrhoids were banded and a flexible sigmoidoscopy arranged. Unfortunately, the patient refused the latter investigation and did not return for her follow-up appointment. Eight months later, she presented with further profuse bleeding and, on clinical

examination, was noted to have an anal tumour. A flexible sigmoidoscopy revealed an ulcerating carcinoma at the rectosigmoid junction and biopsies of both lesions confirmed adenocarcinoma. She underwent a palliative abdomino-perineal resection but died from liver secondaries 8 months later.

Case report 2

A 55-year-old man presented with a short history of anal canal type bleeding. Fifteen months earlier, he had been seen elsewhere with similar symptoms and had his haemorrhoids injected with oily phenol which had led to complete resolution of his symptoms. On this occasion, ano-rectal examination revealed a fungating tumour of the anus and a flexible sigmoidoscopy showed a carcinoma of the distal sigmoid. Biopsies demonstrated adenocarcinoma at both sites. At laparotomy, the upper lesion was noted to be fixed and infiltrating the perivesical fat and seminal vesicles. He underwent a palliative Hartmann's procedure followed by postoperative radiotherapy to the perineum and pelvis.

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Discussion

Experimental evidence suggests that the primary requisite for the implantation and growth of colon cancer cells is an underlying damaged mucosa and that, conversely, an intact mucosa is resistant to the implantation of viable malignant cells.⁵ In our patients, the breach of the anorectal mucosa would seem paramount in allowing any viable exfoliated malignant cells to implant successfully and grow into the clinically evident macrometastases. Indeed, both banding of haemorrhoids and sclerotherapy cause a degree of local mucosal necrosis and, with a well-vascularised raw surface similar to an agar plate, allow for successful implantation.

At this point, we concede that we can only hypothesise that these anal lesions developed in this way. Indeed, if these tumours were as a result of implantation, why do we not see more of such cases? This is a difficult question to answer and it is possible that this is an inherently rare occurrence. Certainly, the raw area produced by the local treatment is small and generally heals rapidly allowing only a minute window of opportunity for implantation. In this context, it is important to note the elapsed time between the local therapy and subsequent presentation. Had the patients undergone higher endoscopic evaluation and had their tumours resected, the number of cells potentially implanted would have been all but negligible. Another possibility is that this is indeed an original observation although we feel this unlikely. Had these two cases occurred over a 10-year period rather than by chance both seen in a 6-month period, the first case might have easily been forgotten. Perhaps, for any number of reasons, there have been no attempts made to report this

occurrence before. This might be compounded by the fact that there are reduced opportunities for publication of short reports due to pressure on journal space and editorial policies directed at improving a journal's impact factor.⁶ Nevertheless, despite the above and to the best of our knowledge, such cases of anal metastases following either haemorrhoidal sclerotherapy or band ligation in patients with occult malignancy have not been previously described.

Finally, local haemorrhoidal therapy need not be delayed when patients first present with presumed 'classical' haemorrhoidal bleeding. However, a low threshold for endoscopic evaluation of the left colon would seem sensible, certainly in older patients, bearing in mind the current guidelines on screening for colorectal neoplasia.

References

1. Umpleby HC, Fermor B, Symes MO, Williamson RCN. Viability of exfoliated colorectal carcinoma cells. *Br J Surg* 1984; **71**: 659–63.
2. Killingback M, Wilson E, Hughes ESR. Anal metastases from carcinoma of the rectum and colon. *Aust NZ J Surg* 1965; **34**: 178.
3. Basha G, Ectors N, Pennickx F, Filez L, Geboes K. Tumor cell implantation after colonoscopy with biopsies in a patient with rectal cancer: report of a case. *Dis Colon Rectum* 1997; **40**: 1508–10.
4. Rollinson PD, Dundas SA. Adenocarcinoma of sigmoid colon seeding into pre-existing fistula in ano. *Br J Surg* 1984; **71**: 664–5.
5. Hubens G, Lafullarde T, Van Marck E, Vermeulen P, Hubens A. Implantation of colon cancer cells on intact and damaged colon mucosa and serosa: an experimental study in the rat. *Acta Chir Belg* 1994; **94**: 258–62.
6. O'Connell PR. What should a surgeon write? In: Schein M, Famdon JR, Fingerhut A. (eds). *A Surgeon's Guide to Writing and Publishing*. London: tfm Publishing, 2001; 12.