Case 80 An ulcer at the anal verge

Figure 80.1

On the same day that the previous patient (Case 79, p. 158) attended the colorectal clinic, a patient with the lesion shown in Fig. 80.1 presented. He was a male nurse aged 55 years who had noticed a lump at his anal verge about 6 months previously, which bled on the toilet paper and onto his underpants. He thought he had piles and treated himself with various ointments he bought from the chemists. It was now getting bigger, bled more, was painful and was tender to touch. Examination revealed a healthy, middle-aged man. No abnormality was found on abdominal examination and careful examination revealed no inguinal lymphadenopathy. The anal ulcer was tender, had raised everted edges and was rubbery hard. Its upper border extended into the anal canal.

What would be your clinical diagnosis on these findings?

A malignant ulcerating tumour, probably an epithelioma of the anal verge.

What other malignant tumours may present at the anal verge?

Downward spread from an advanced adenocarcinoma of the lower rectum, malignant melanoma, basal cell carcinoma (rodent ulcer), carcinoid tumour and lymphoma. All of these are uncommon.

Under local anaesthetic, injected with a fine needle through the normal skin at the ulcer edge, a punch biopsy was taken. What would be the histology report, and why?

A squamous carcinoma arising from the stratified squamous epithelium that lines the lower half of the anal canal. This is in contrast to the columnar epithelial lining of the upper half.

Is the difference in the histology between these two situations of any importance in the management of the patient?

Very much so! Squamous cell carcinomas are usually radio-sensitive (e.g. skin, larynx, cervix of the uterus) and can be treated by radiotherapy. Indeed, this is how this patient was managed.

Adenocarcinomas, as a rule, are relatively radio-resistant, which is why the previous patient with a low rectal tumour required an abdomino-perineal excision of the rectum.

This patient's tumour was painful; he also required local anaesthetic for a biopsy to be taken. This contrasts with the previous case, whose large growth caused no pain and whose biopsy was performed without a need for an anaesthetic. Can you explain this?

The lower anal canal receives a somatic innervation from the pudendal nerve (S2, S3 and S4), which transmits normal cutaneous sensation of heat, cold, touch and pain. The upper anal canal, like the rest of the alimentary canal from the oesophago-gastric junction downwards, has an autonomic nerve supply, with sensation transmitted by sympathetic afferent nerves. These are insensitive to pricking, cutting and burning. Pain from a rectal carcinoma immediately suggests invasion of the surrounding pelvic tissues.

Why did the surgeon pay great attention to the patient's inguinal lymph nodes?

The lower anal canal, together with the anal verge, has its own lymphatic drainage to the inguinal lymph nodes. If these are implicated, a block dissection of the groin on one or both sides may be required. In contrast, the upper anal canal, like the rectum itself, drains along lymphatics that accompany the superior rectal veins to nodes lying alongside these vessels and then along the pedicle of the inferior mesenteric vessels.