Case Report

Squamous cell carcinoma of suprapubic cystostomy tract without bladder involvement

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This report describes a third case of squamous cell carcinoma of the suprapubic cystostomy tract.^{3,4} The first case reported in 1993 concerned a squamous cell carcinoma arising adjacent to the suprapubic cystostomy site and extending anteriorly to the abdominal wall in a 80-year-old man, 5 years after suprapubic urinary diversion for urethral stricture.⁴ A second case published in 1995 described a 50-year-old paraplegic man (T11–T12 spinal cord injury) in whom a suprapubic cystostomy tract squamous cell carcinoma developed after 25 years of urinary diversion. The tumour involved the cystostomy tract primarily with extension into the bladder but did not penetrate the bladder wall muscle.³ Our patient is in fact the second one to have a suprapubic cystostomy tract squamous carcinoma not involving the bladder.

Keywords: spinal cord injury; suprapubic catheter; squamous cell carcinoma of cystostomy tract

Case Report

A 63-year-old Caucasian paraplegic male patient who had a suprapubic Foley catheter for 37 years after spinal cord injury, developed a huge suprapubic mass. He had suffered from advanced kyphoscoliosis in infancy (thoracic kyphosis, lumbar lordosis), which needed surgical correction at the age of 18 years. An operation on the spinal column (laminectomy T5–T9) resulted in a spinal cord injury, incomplete T4 and complete T7 (T4–T7 sensory/motor deficit). Six years later a urethral diverticulum with abscess formation perforated spontaneously. A urethral fistula persisted, and a suprapubic cystostomy tube was eventually required 2 years later. The further medical history revealed recurrent urinary tract infections and the growth of a bladder stone.

Physical examination showed an exophytic mass (10 × 5 cm in size) in the abdominal wall enveloping the suprapubic catheter. Urine cytology was negative. Cystoscopy revealed inflammatory changes of the mucosa without evidence of tumour growth. Earlier urodynamic examination showed a neurogenic bladder (upper motor neuron lesion with hyperreflexia of the bladder). Ultrasound examination of the kidneys did not show any dilatation. Both on the CT-scan and the MRI of the abdomen a tumour mass surrounding the

suprapubic cystostomy tract was clearly visible (Figure 1). Multiple at random biopsies of the bladder failed to show any malignant changes. However, histological examination of biopsies from the suprapubic tract and the suprapubic mass revealed squamous cell carcinoma.

The patient underwent a wide excision of the tumour mass also invading the rectus muscle, with partial removal of the dome of the bladder (Figure 2). Microscopic analysis revealed a moderately differentiated squamous cell carcinoma of the suprapubic tract but there was no bladder involvement. All the surgical margins were free of tumour. Five months after surgery the patient died of pneumonia but autopsy showed no evidence of any local recurrence or metastasis.

Discussion

Squamous cell carcinoma is a rare form of carcinoma of the bladder, accounting for 5% of the total.¹ The prognosis is generally unfavourable. Chronic inflammation of the bladder either from bacterial or parasitic infections, foreign bodies or bladder calculi have all been implicated in the aetiology of squamous cell carcinoma.² The presence of an indwelling catheter may lead to the development of squamous metaplasia which may give rise to squamous cell carcinoma.³ In the literature there is a 10% incidence of squamous cell

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Figure 1 MRI of the abdomen shows the catheter in the bladder, below a tumour mass encasing the catheter as it passes through the abdominal wall

carcinoma of the bladder in patients with indwelling catheters for more than 10 years.⁴ Based on a study of spinal cord injury patients with indwelling catheters for more than 10 years, demonstrating a prevalence of 20% of squamous cell carcinoma of the bladder, Kaufman *et al*² advocate periodic cystoscopy combined with random bladder biopsies for this category of patients. Squamous cell carcinoma of the suprapubic tract or arising from the skin and subcutaneous tissues tends to be localised at the time of diagnosis. Therefore wide excision of the abdominal wall involved, together with partial removal of the bladder dome as in our patient, seems justified.⁴ However, other authors stress that aggressive surgical excision of the complete bladder and the abdominal wall involved is the only effective current treatment.³ Since this type of cancer is so extremely rare, it must be concluded that treatment

Figure 2 Carcinoma of the abdominal wall removed at operation, showing the indwelling catheter

recommendations are necessarily anecdotal. On the contrary, when one is dealing with a squamous cell carcinoma of the bladder, a very more aggressive treatment is warranted because of the rapid death of conservatively treated patients.¹ Here, the only acceptable treatment is indeed radical cystectomy and urinary diversion. Only this treatment can cure some patients with deeply invasive but localised squamous cell carcinoma of the bladder.^{2,3}

References

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