

Squamous cell carcinoma arising in an epidermoid cyst

Introduction

Epidermoid cysts are commonly encountered in surgical practice. This article reports an unusual presentation of metastatic squamous cell carcinoma following trauma to an epidermoid cyst, highlighting the importance of correct surgical management.

Discussion

Epidermoid cysts or epidermal inclusion cysts result from epidermal invagination into the subcutaneous fat. Squamous cell carcinoma arising from the wall of an epidermoid cyst is rare – only ten documented cases have been reported in the English literature to date (Cameron and Hilsinger, 2003). Although the early literature reported over 100 cases, Lopez-Rios et al (1999) questioned the reported 2.2% incidence after reviewing the microscopic and photo-micrographic evidence.

Risk factors provoking dysplastic changes in epidermoid cysts are thought to include chronic inflammation from

cyst contents or repetitive trauma, and ultraviolet light. The relatively short time span (under 3 months) between buttock trauma and presentation of the current patient suggests that it is unlikely that the cyst was benign before the trauma. Wong et al (2000) reported a similar case, suggesting that the majority of cases are simply diagnosed and treated earlier as they occur in more visible, superficial sites on the body.

Metastatic spread is a rare complication, with only one other reported case of mortality (Arianayagam and Jayalakshmi, 1987). The current case highlights the importance of the correct surgical management with removal of the cyst wall rather than simple enucleation. Routine histological examination of all excised cutaneous cysts is advised as long-standing lesions without atypical features may undergo malignant transformation. Malignancy should be suspected when confronted with an atypical presentation (increase in size, pain, ulceration or discharge). **BJHM**

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Figure 1. Well-differentiated squamous cell carcinoma arising from cyst wall (haematoxylin and eosin, x 100).

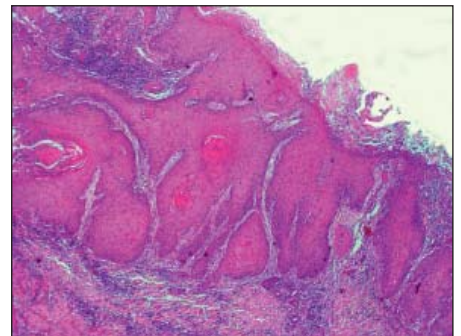


Figure 2. Ulcerated lesion with overriding skin edge.



Case Report

A 48-year-old Caucasian male presented with an inflamed, discharging left buttock mass. An asymptomatic mass, present for 28 years, had increased in size following blunt trauma to the buttock 3 months earlier. On examination a 5x5x3 cm tender fluctuant mass was found in the left gluteal region with an enlarged left inguinal lymph node. An infected epidermoid cyst was diagnosed and incision and drainage performed. Biopsies revealed proliferating squamous epithelium of the cyst wall with areas of cytonuclear atypia, in keeping with invasive well-differentiated squamous cell carcinoma (Figure 1).

The patient was reviewed at 3 weeks, when an ulcerating lesion with overriding skin edges and enlarged left inguinal nodes were discovered (Figure 2). A wide local excision of the carcinoma and the left inguinal lymph node was performed. Histological examination showed the tumour infiltrating the subcutaneous tissue although the deep and lateral resection margins were clear. The lymph node had been replaced by necrotizing squamous cell carcinoma with prominent extra-nodal spread.

A computed tomography scan revealed no distant metastases but an irregularity in the left groin was consistent with an enlarged left inguinal lymph node. The patient was referred for radiotherapy but, despite an initial response, the wound continued to discharge pus. Antibiotics were commenced. A follow-up examination 4.5 months later revealed tumour deposits in the left groin and ill-defined opacities on chest X-ray, suggestive of pulmonary metastases. He was admitted to hospital 10 days later in an acute confusional state, suffering from hypercalcaemia and pneumonia and died 5 days later, only 5 months after his initial presentation.

Mr KS Jehle is Research Fellow, Mr AJ Shakir is Staff Surgeon and Mr ME Sayegh is Consultant Surgeon in the Department of General Surgery, Worthing and Southlands Hospitals NHS Trust, Worthing Hospital, Worthing, West Sussex BN11 2DH

Correspondence to: Mr KS Jehle