Pyogenic granuloma of the penis—a rare entity?

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Abstract
A case of pyogenic granuloma of the prepuce is presented. This to our knowledge, is the first reported case of this condition affecting this site.

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Case report
A 25 year old single, heterosexual man attended in February, 1994 the Department of Genitourinary Medicine in Coventry, with a six months history of intermittent urethral discharge. He had previously attended the Department in August, 1993, when he was found to have a non-specific urethritis. At that time, he was also noticed to have some balanitis and a tight prepuce but no other obvious penile lesions were seen. The urethritis was treated with a course of tetracyclines and the balanitis by simple saline bathing.

At his most recent attendance, there was no evidence (clinical or laboratory) of a urethritis, but he was found to have a large pedunculated, haemorrhagic and friable looking lesion on the inner aspect of his prepuce (fig). There was no history of trauma. In view of the atypical appearance of the lesion, a biopsy was considered necessary; however, because of its large size, an excisional biopsy was felt to be most appropriate.

A surgical referral was arranged so that the lesion could be fully excised. Prior to the operation, the patient was offered a circumcision but this he refused and so an excisional biopsy only was performed. The histological features of the lesion were compatible with that of a pyogenic granuloma. There were no problems after excision and the patient left the United Kingdom shortly after the operation to work abroad.

Discussion
Papillomatous lesions of the penis are commonly due to genital warts (condylomata acuminata), which are easily diagnosed on clinical appearance and therefore safely treated, without prior need for biopsy. On the other hand, lesions with an atypical appearance or which fail to respond to conventional anti-wart treatments, should be biopsied. This is particularly important to exclude malignant transformation in warts,1 bowenoid papulosis2 and Giant condyloma (Buschke-Loewenstein tumours).3

Pyogenic granuloma are common vascular lesions, which develop rapidly often at a site of recent trauma or where minor trauma is likely. The common sites for these lesions are the hands (especially the fingers), the feet, head and upper trunk, lips and mucosal surfaces of the mouth4 and perianal region. Overall, the evidence suggests that this is a reactive lesion,5 but in spite of its name, not in response to micro-organisms. On the other hand, superficial trauma to the skin is thought to facilitate the transmission of human papillomavirus (HPV) related warts.6,7

In the case presented, there was no clear history of trauma, but the rapid growth of a painless lesion, which bled easily on examination was typical. Of particular interest is the fact that apart from the obvious differential diagnosis involving warts, a comparison with Kaposi's sarcoma8 has suggested the possibility that both conditions are responses to a similar form of initiating stimulus, modified by sex linked genetic or hormonal factors, which determine which lesion will develop in response to this stimulus.9 However, as a recent study comparing the lesions of oral
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Kaposi’s sarcoma with oral pyogenic granulomas has shown, there are numerous histological differences between these two entities.9

Treatment of a pedunculated pyogenic granuloma is by curettage and cauterisation or diathermy coagulation of the base. In the case of the recurrence following this form of treatment, then excision of a narrow but deep ellipse beneath a pyogenic granuloma is considered desirable in order to avoid the likelihood of further recurrences. However, recurrences have been reported in cases which were originally considered to have undergone sufficient surgical excision.6 In these latter cases, globules of small vessels dispersed between collagen bundles in the deeper dermis were seen on histological examination.10

In conclusion, it is surprising in view of the fact that minor trauma to the genitals is not uncommon during coitus, that pyogenic granulomas are not more often seen in these sites. It is, however, possible that some lesions diagnosed and treated as genital warts are in fact small pyogenic granulomas.