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Letters to the Editor (Correspondence)

## **PYOGENIC GRANULOMA OF THE PENIS FOLLOWING CHANCRE**

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Editor,

Pyogenic granuloma (PG) is a common, acquired, benign vascular lesion of the skin and mucous membranes that can develop both spontaneously and traumatically. The lesion is usually solitary and rapidly growing and bleed easily, often occurring at the site of minor trauma of the skin. It most typically occurs on the exposed skin surfaces such as the hands (especially the fingers and forearms), the feet, face, oral mucosa but it has been rarely reported on the anogenital region (1).

A 44-year-old “men having sex with men” (MSM) patient presented to our Department with two weeks duration of painless ulcerations on the coronary sulcus and shaft of the penis with unilateral inguinal lymphadenopathy (Fig. 1). The patient has reported unprotected sex with unknown partner two months prior to this visit. Darkfield examination was positive for *Treponema pallidum*. Serological tests were positive (Venereal Diseases Research Laboratory test (VDRL): positive; titer 1:80, the Rapid Plasma Reagin test (RPR): positive; *T. pallidum* Haemagglutination test (TPHA): positive, titer 1:160; Fluorescent Treponemal Antibody absorption test (IgM FTA-abs test: negative,

IgG FTA-abs test: positive, titer 1:40). No Penicillin allergy has been reported. The patient was treated with single dose benzathine Penicillin G, 2.4 million units intramuscularly. We performed other STIs test, which was negative for HIV infection but was positive for hepatitis B so accordingly, the patient was referred to Infectious diseases clinic for further treatment (of hepatitis B). The syphilis serology taken one month after the treatment was VDRL/RPR negative, whereas the TPHA has remained positive in the lower titer, which is to be expected .

A year after primary syphilis treatment, the patient has developed well demarcated raised vascular lesion that was bleeding after gentle touch on the spot of the previous chancre. Painless, solitary, bright red, soft, non-tender papule, sized 6 mm in diameter on the penile coronary sulcus (Figs. 2a, 2b) was observed. There was no regional lymphadenopathy. A clinical diagnosis of a suspected PG was made and we performed excisional biopsy. Histologically, the diagnosis of pyogenic granuloma was confirmed. After the biopsy, the lesion completely regressed, and no recurrences were observed in the two years follow up period.

The aetiology of PG is not fully understood. Predisposing factors are trauma, chronic irritation, hormonal factors and medications (1, 2). Differential diagnosis of PG includes mainly condylomata acuminata, angiokeratoma, Kaposi sarcoma, Spitz naevus, verrucous carcinoma, squamous cell carcinoma, Bowen disease, spindle cell tumors, bacillary angiomatosis, and donovanosis (3-5). Out of the 11 cases of penile PGs reported in the literature, only five have been reported as trauma related, three were seen after circumcision (3, 6, 7), one as complication of papaverine injection therapy for impotence (8) and one after balano preputial adhesions lysis (9).

Our patient developed PG one year after he was successfully treated for primary syphilis. Although initially he had two ulcers, he developed PG on only one, which was deeper and close to frenulum. Probably the ulceration repair was incomplete due to excess movement and tension of the prepuce which caused formation of granulation tissue. Mooney et al suggested that excessive local production of angiogenic factors or cytokines may provoke PG growth after irritation or trauma (1).

Clinical characteristics and patient's history of a fast growing, easily bleeding lesions are quite often sufficient to confirm the diagnosis of PG. However, histopathological confirmation should be mandatory, as up to 18% of these lesions are misdiagnosed (4), usually as genital warts (7). Treatment of choice for PG is surgery, but curettage, cauterization, diathermy coagulation of the base, cryotherapy, micro-embolization, laser and imiquimod cream are also possible (4, 7, 10).

It is now widely accepted the association between skin injury and development of PG, and it is therefore surprising that genital granulomas are not seen more frequently. As stated before (7), there is a significant possibility that many cases of genital PG may be misdiagnosed and treated as genital warts, especially in urethral meatus leaving the diagnosis unconfirmed.

According to our knowledge, this is the first case in the literature describing PG which developed on the site of primary syphilis infection, and it can support the role of trauma as an PG aetiology factor.

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**Figure 1.**

Ulceration on the coronary sulcus and shaft of the penis with unilateral inguinal lymphadenopathy  
(positive serological tests for syphilis)

**Figure 2 and b.**

Pyogenic granuloma developed a year after chancre on penile coronary sulcus







