

## Case report

**Penile amebiasis mimicking penile squamous cell carcinoma****Efrén Rafael Ríos-Burgueño<sup>1</sup>, MD, Jesús Salvador Velarde-Félix<sup>2</sup>, PhD, and Aurelio Flores García<sup>3</sup>, PhD**

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**Introduction**

Amebiasis is a major cause of morbidity and mortality worldwide, mainly in low-income countries with poor sanitation conditions.<sup>1</sup> It is transmitted through the fecal-oral route,<sup>2</sup> but direct transmission of trophozoites from the colon and rectum to the genital area has also been proposed.<sup>3,4</sup> The latter route can lead to penile amebiasis, clinically characterized as serpiginous ulcers with mucopurulent discharge, distinct, raised, thick, often undermined borders and erythematous rim, covered with necrotic tissue.

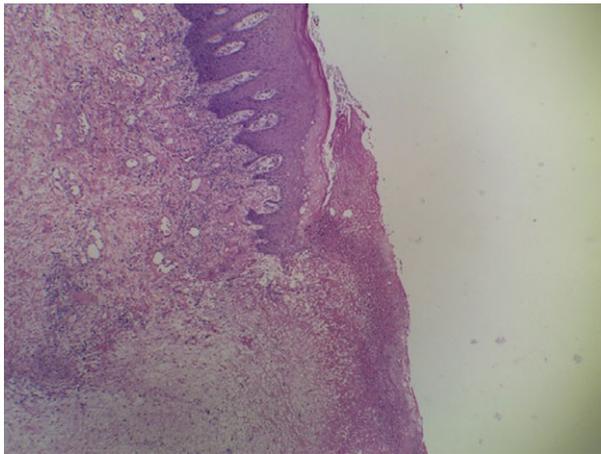
This disease causes dysuria, balanoposthitis, and pain,<sup>5</sup> the latter being the key element to distinguish it from penile cancer.<sup>6</sup>

We report an elderly patient who developed an amoebic ulcer on his penis mimicking penile squamous cell carcinoma. The probable mode of infection was by autoinoculation of trophozoites through fecal matter.

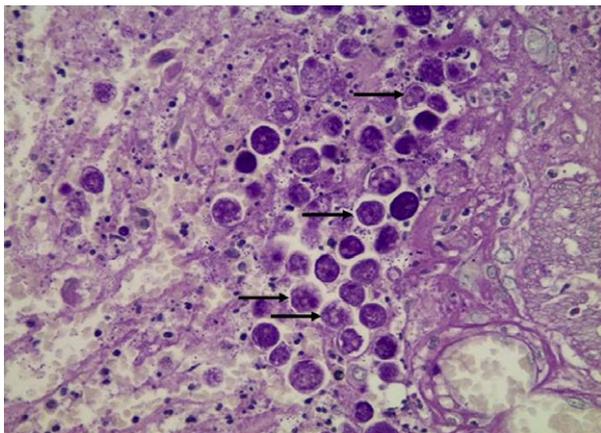
**Case report**

A 76-year-old Mexican mestizo man born on Sinaloa arrived at the Hospital General de Culiacan on April 08, 2014, with edema

of the scrotum and penis, foreskin and glans necrosis with foul odor, urethral discharge, hyperemia, and localized hyperthermia that had lasted 22 d. Debridement and circumcision were performed, and the patient was discharged home with 600 mg clindamycin IV every 8 h and 750 mg levofloxacin IV every 24 h. A week later, he returned to the hospital with foreskin totally destroyed by a large ulcer with irregular borders and necrotic areas (Fig. 1); a penectomy was performed. The surgical specimen was sent for histopathological study, which found many hematophagous trophozoites (Fig. 2); a urethral discharge culture with different selective media for isolation of common bacteria was performed obtaining a normal result, while the cavernous body was free of damage. He was discharged with metronidazole 1500 mg daily for 2 weeks after which time the ulcer regressed and he was subjected to reconstructive surgery (Fig. 3). On September 02, 2015, he was interviewed and reported suffering from gonorrhoea 40 years prior and had practiced anal intercourse with his wife; however, she died 3 years ago. He had direct contact with stool in a home latrine and 8 d afterwards experienced the first symptoms, localized



**Figure 1** Skin surface with an interphase between healthy epithelium and ulcerative ischemic necrosis of foreskin (hematoxylin and eosin,  $\times 4$ ).



**Figure 2** Many erythrophagocytic trophozoites are seen on necrosis and hemorrhagic areas of the ulcer amebic (periodic acid-Schiff stain,  $\times 10$ ).

hyperthermia and pain, for which he self-administered paracetamol. He declared to be heterosexual, did not remember having suffered from intestinal amebiasis before the first symptoms, and had not had sexual intercourse in the last 7 years. Today, he is fully recovered and in good health.

## Discussion

Penile amebiasis is a rare form of cutaneous amebiasis sexually transmitted through unprotected anal intercourse with a person suffering from intestinal amebiasis. It typically manifests as ulcers,<sup>7</sup> which may be confused with squamous cell carcinoma of the penis.<sup>6</sup> The first signs of penile cancer include change in color of the skin and skin thickening; the later symptoms are



**Figure 3** View a picture of genital area after reconstructive surgery. This photograph was taken on September 02, 2015, during interview with permission of the patient and his family.

ulcers, discharge, and bleeding.<sup>8</sup> Our patient presented some clinical characteristics of penile cancer such as ulcers and urethral discharge; for this reason, the first diagnosis was penile cancer, and a penectomy was performed. However, the biopsy revealed the final diagnosis: penile amebiasis.

Generally, there is not much clinical variability in penile amebiasis. Abdolrasouli *et al.*<sup>7</sup> reported four young adults with sexually acquired penile amebiasis; one patient, who had a bisexual background and a history of sexually transmitted diseases, had developed bilateral inguinal lymphadenopathy. Mohanty *et al.*<sup>9</sup> reported a 47-year-old male with a history of homosexuality who also developed bilateral inguinal lymphadenopathy. These cases were successfully treated with metronidazole. In contrast, our patient did not develop inguinal lymphadenopathy, was an elderly person who never had sex with other men, and probably acquired the infection by direct contact with fecal matter in a rural community with poor sanitary conditions and particular sociocultural characteristics; a very uncommon but possible route of infection.<sup>3, 4</sup>

Finally, this rare case of transmission of *Entamoeba histolytica* shows the necessity of rethinking healthy hygiene practices in regions with extreme socioeconomic marginalization and deficient sanitary conditions.

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