

## Cutaneous Leishmaniasis on the Glans Penis: A Case Report

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#### Case Report

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### ABSTRACT

A 79-year-old male presented with an ulcerated lesion on the glans penis. Histopathological evaluation of the biopsy from the lesion revealed the presence of *Leishmania* amastigotes and confirmed the diagnosis of cutaneous leishmaniasis. The patient was treated with several sessions of cryotherapy; the lesion healed and left no scar.

### INTRODUCTION

Leishmaniasis is a parasitic infection with a broad clinical manifestation ranging from the self-healing cutaneous lesions to life-threatening visceral forms affecting internal organs called Kala-azar. The *Leishmania* protozoa are transmitted to humans via the infective bites of female sandflies belonging to the genera *Phlebotomus* in the Old World and *Lutzomia* in the New World. In Iran, cutaneous leishmaniasis (CL) is an endemic disease with some new 20,000 cases reported annually. However, the real burden of the disease could be 4 to 5 times higher [1], as many cases occur in underprivileged areas and are not registered officially. Both the wet type caused by *Leishmania major* in rural areas and the dry type caused by *Leishmania tropica* in urban areas, are prevalent in Iran. The disease can cause considerable morbidity and is a significant health burden in the country. Clinical presentations of CL show a great diversity over the geographical areas and commonly appear on exposed areas like face and limbs. Here, we report an unusual case of CL with the clinical presentation on the glans penis.

### CASE REPORT

In February 2017, a 79-year-old man referred to the Department of Dermatology at Faghihi Hospital in Shiraz, Iran, complaining of a painless ulcer of the glans penis. Approximately seven months before presentation, he had noticed a papular inflamed lesion that subsequently became ulcerated. The medical history of the patient revealed hypertension; he was taking losartan 50 mg twice daily,

aspirin 85 mg once daily, amlodipine 5 mg twice daily, atorvastatin 20 mg once daily, and hydrochlorothiazide 25 mg once daily.

Dermatological examination of the lesion revealed an erythematous ulcerated lesion of about 1 cm diameter on the glans penis. The edges of the ulcer were raised, and its base was indurated (Figure 1). The examination of regional lymph nodes revealed no enlargement. Sonographic evaluation of the scrotum, abdomen, and pelvis was normal. A biopsy of the lesion was taken and examined microscopically, which revealed the presence of *Leishmania* amastigotes.

Since the diagnosis of CL on the glans penis was confirmed, the patient was treated with seven sessions of cryotherapy. The lesion gradually healed and left no scar.

### DISCUSSION

Cutaneous leishmaniasis is still a heavy burden on medical care services in various parts of Iran. CL can appear on any area of the skin on the body. However, it is more common in exposed areas such as the head, neck, hands, and feet. The genital area is commonly a non-exposed part of the body, and penile CL, like our case, is scarce. Our review of the literature revealed 4 published case reports of CL on the glans penis. The first case reported by Schubach *et al.* (1998), describes a small painless ulcer with yellow exudate on the glans penis, which was subsequently diagnosed as CL [2]. Cabello *et al.* (2002) described a similar infection in two men, both presenting with indurated ulcers with raised edges and

yellow exudate [3]. Our case had a similar presentation to the penile CL described in both case reports. Another case report by Gulum *et al.* (2013) from Turkey described a large hyperkeratotic lesion of the glans penis [4].

Since CL commonly affects the exposed areas of the body where the *Phlebotomus* sandfly can access a blood meal and inoculate the parasite simultaneously, some authors suggest that leishmaniasis of the genital organs may arise due to hematogenous spread of parasite from distant cutaneous lesions [5].

However, our case had an isolated penile glandular cutaneous lesion. In the fourth case report, Yesilova *et al.*

(2014) reported a 5-year-old child presenting with an ulcerative penile lesion, which was subsequently diagnosed as CL. The authors suggested that leishmaniasis be considered in the differential diagnosis of painless ulcers in the unexposed glans penis in endemic areas [6].

In conclusion, leishmaniasis remains one of the relatively common differential diagnoses of cutaneous lesions on exposed parts of patients in endemic areas. It is essential to be aware of this differential diagnosis, even in commonly unexposed areas of the body, such as the genital region.



**Fig. 1.** An ulcerated lesion with induration on the glans penis

#### CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest associated with this manuscript.

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