

Genital Infection by Chigoe Flea in a Pediatric Patient: A Case Report

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ABSTRACT

The development of infectious genital sores in children is rarely observed. We report a case of chigoe flea infection on the penis of a child living in an urban area. Healthcare

professionals should be warned about the prevention of possible clinical complications.

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INTRODUCTION

Tungiasis is an ectoparasitic disease caused by infection from the chigoe flea *Tunga penetrans*, which inhabits dry, sandy places and is mainly found in rural areas, corrals and sty [1]. The female chigoe flea is the one capable of penetrating tissues, feeding on tissue fluids and blood, and eventually becoming hypertrophied. Its common reservoir hosts include pigs, dogs, cats and humans. The female flea usually burrows into the exposed skin areas of human hosts such as the sole of the foot, toes and eyelids, and rarely, in the genital area. Here, we report an atypical case of this burrowing flea in a pediatric patient in an urban area.

CASE REPORT

A 7-year-old white male was referred to the urology center due to pruritus and discomfort in his genital area for seven days. He matched the clinical picture as he referred to sporadic pain and a 'needle' feeling on the glans, while he denied any history of trauma, urinary complaints, fever and comorbidity. Physical examination revealed a punctiform lesion of 0.3 mm in diameter with a peripheral hyperemic rim delimiting a whitish area of blackened center on the left side of his glans penis (Figure 1). Neither inflammatory signs nor inguinal lymph nodes were recorded. The patient underwent enucleation of the lesion with a sterile needle after the diagnosis of chigoe flea infestation was confirmed by clinical examination. The parasitic node (encapsulated) was removed and sent for analysis, which showed the presence of *Tunga*

penetrans.

DISCUSSION

According to historical accounts, this zoonosis was one of the first diseases to affect the European conquerors who landed on the shores of the Americas [2]. The *Tunga* female fleas are hematophagous and can jump vertically up to 20 cm and crawl or run up to 1 cm per second. After eggs are shed by the female fleas, they hatch into larvae in about 3-4 days under ideal conditions [3]. Risk factors for tungiasis infestation include human settlements, rural areas under extreme poverty, inadequate sanitation, lack of closed shoes and infested domestic animals [3].

In 95% of the cases, chigoe flea burrows on the feet (around toenails, on the sole of the toes), but its occurrence in areas such as hands, gluteus, scrotum and perineum has also been described [3, 4]. One of the most feared complications in pediatric patients is tetanus [4], and tetanus vaccine is therefore included in the treatment of tungiasis jointly with enucleation of the parasitic node and specific antibiotic therapy. The differential diagnoses of the condition include abscesses, myiasis, pyodermas, common warts, melanoma, cutaneous larva migrans, and scabies [5, 6]. The rarity of tungiasis in the genital area (penis) and the unfamiliarity of the urologist with this case, especially in non-endemic areas, made us aware of another differential diagnosis of genital skin lesions in children.

CONCLUSION

The 'chigoe flea' on the penis, although a rare

Figure 1: The lesion showed a peripheral white area of hyperkeratosis with a central black spot located on the left side of the glans



entity in the clinical practice of urologists, should be considered in the differential diagnosis of genital lesions, especially in children.

CONSENT

A written informed consent was obtained from the patient's family for the publication of this case report as the patient is a minor.

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