Donovanosis in a child victim of sexual abuse: response to doxycycline treatment*

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Abstract: Donovanosis is a chronic infectious disease caused by the Gram-negative bacteria *Klebsiella granulomatis*, which mainly affects the skin and mucous membranes of the genital, perigenital, and inguinal regions. Also known as venereal granuloma or granuloma inguinale, it is endemic in tropical and subtropical regions of the globe and often associated with sexual transmission. We report the case of an 11-year-old female victim of chronic sexual abuse, who was diagnosed with donovanosis and presented a good therapeutic response to doxycycline.

Keywords: Child; Child abuse, sexual; Dermatology; Doxycycline; Granuloma inguinale; Sex offenses; Sexually transmitted diseases; Vulvar diseases

Donovanosis is a sexually transmitted infection (STI) caused by *Klebsiella granulomatis* and often transmitted by sexual contact. It is a secular disease endemic in tropical and subtropical countries and affects both men and women, especially between 20 and 40 years of age.[1] Low socioeconomic status, poor hygiene, and sexual promiscuity are the main risk factors.[2]

We report a case of an 11-year-old female, victim of chronic sexual abuse, who presented with an asymptomatic vulvar lesion with one month of progressive growth. The examination revealed localized dermatosis in the internal region of the labia majora, characterized by two symmetrical and erythematous ulcers with well-defined borders (Figure 1). A biopsy and a direct cytological examination were performed, but only the anatomopathological examination

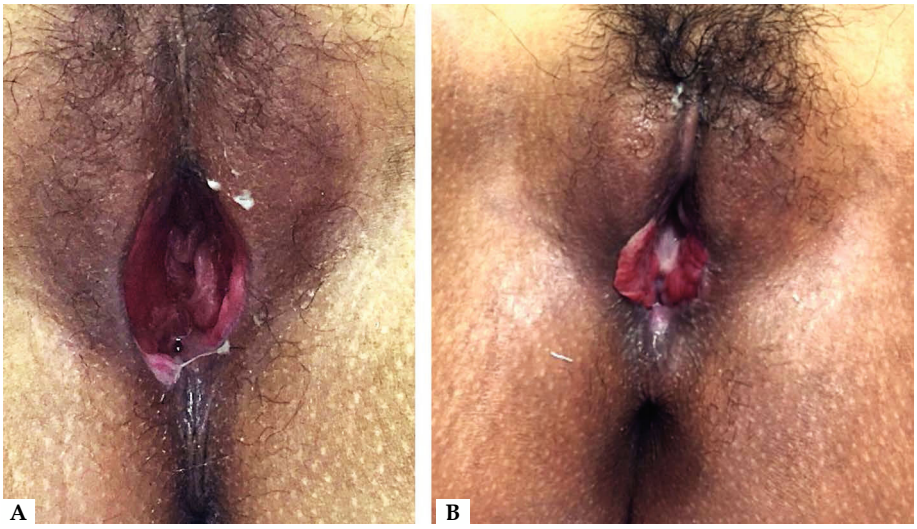

Figure 1: Clinical aspect of the lesion, characterized by well-defined ulcers and erythematous and granular base located bilaterally on the inner side of the labia majora. **A -** pre-treatment **B -** 3-week response with doxycycline

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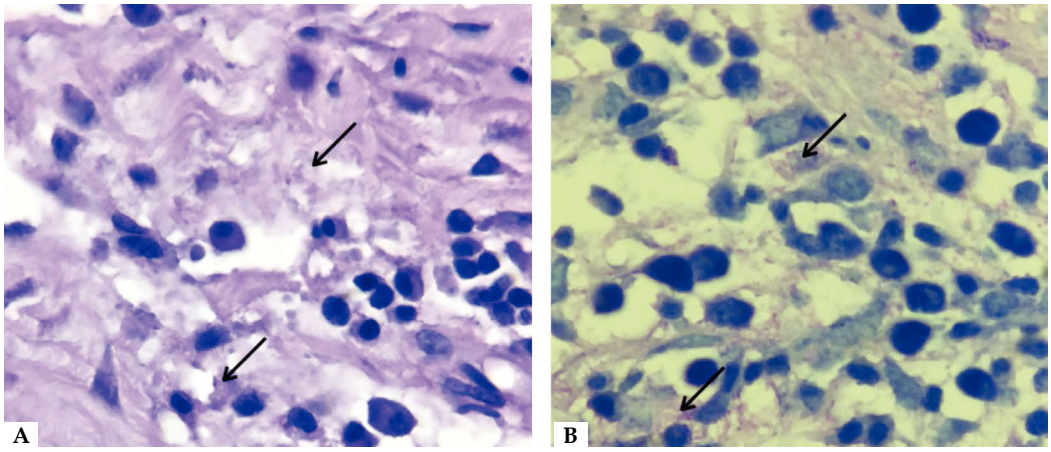

Figure 2: Histopathological examination: **A -** mixed inflammatory infiltrate and macrophages with ample cytoplasm filled with bacilli (arrows) (Hematoxylin & eosin x400) **B -** Bacilli containg macrophages (arrows) (Giemsa x400)

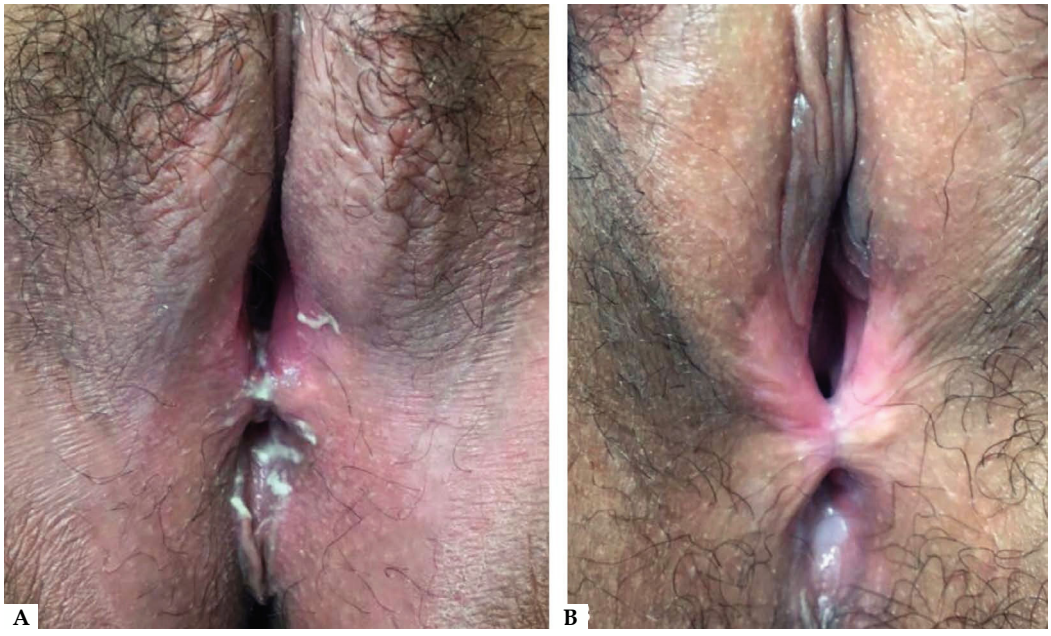

Figure 3: A - Healing process at the end of 20 weeks of treatment **B -** sustained healing at 3 weeks of follow-up

revealed the Donovan corpuscles (DC) (Figure 2). Serologies for other STIs were requested; all were non-reactive. The patient was treated with doxycycline for 20 weeks, attaining complete remission of the lesions (Figure 3). As a victim of sexual abuse, she was also evaluated by pediatricians, psychologists, and social workers.

According to the World Health Organization (WHO), child abuse is defined as abuse and neglect of all children under the age of 18, including physical, psychological, and sexual abuse as well as neglect and commercial exploitation. Just as there is controversy about the association between anogenital condylomata in children and child sexual abuse, cases of donovanosis in children are frequently associated with infected adults, but are not necessarily due to sexual contact.[2-4] In the case presented here, the patient had a known history of abuse before the diagnosis of the disease, and there was no doubt of the contagion.

Donovanosis presents an incubation period ranging from 1 to 360 days, with an average of 50 days. Clinical presentation begins with a painless papule or nodule that evolves slowly, ulcerating into a softened and erythematous lesion with well-defined, hardened and elevated irregular borders[1]. Both the clinical presentation and chronology of this case are compatible with the classic description.

Diagnosis is based on the clinical characteristics of the lesions and on the identification of the bacteria[5]. *K. granulomatis* is an intracellular organism that, when phagocyted by large histiocytes, forms DC.[6] These corpuscles can be identified using Wright, Giemsa or Leishman stains in the direct examination of a lesion smear and in the histopathological examination. In the presented case, the DC was evident in the histopathological examination, but not in the direct examination of the smear.

Doxycycline (100mg bid) is the first line of treatment according to Brazil's Ministry of Health[7] and the WHO[8], and the second option according to the Centers for Disease Control and Prevention.[9] It can be prescribed for children over 8 years old, and the treatment should be continued until clinical remission, which can take between 2 weeks and 3 months. Follow up should be kept for at least 18 months. In our case, the patient received 20 weeks of treatment, with sustained healing at the clinical follow-up at 23 weeks.

Donovanosis is an STI rarely reported in scientific journals. The recognition of the clinical lesion and laboratory confirmation of the diagnosis are crucial, given the prolonged treatment of this disease. ❑

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