# Giant chancre in an octogenary patient. Always remember syphilis!

Cancro gigante por sífilis em octogenário. Sempre lembrar da sífilis!

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#### ABSTRACT

Introduction: Syphilis is a sexually transmitted infection (STI) caused by the *Treponema pallidum* and has become epidemic in the past two decades. The disease is often asymptomatic, and its manifestations are diverse. It may affect multiple systems, posing the risk of serious consequences or even death. Objective: To present a case of an exuberant syphilis-related lesion in an elderly man. Case report: An 85-year-old man presented with a painless penile lesion. He reported having had oral sexual contact (felatio) with a female sex worker six weeks prior the presentation of the lesion. During the physical exam, an ulcer measuring three to four cm was observed, reaching subcutaneous tissue down to the Buck's fascia, and presenting a clean beefy red base, and an infiltrated edge. Bilateral and movable enlarged and painless lymph nodes were found. The rapid immunochromatographic test was positive for syphilis and negative for HIV, hepatitis B, and hepatitis C. Treatment consisted of an *in loco* injection of 2,400,000 IU of benzathine penicillin. Conclusion: In spite of being more common among younger individuals, syphilis should be always considered in the differential diagnosis of genital ulcers, regardless of the patient's age. Many aged people keep an active sexual life especially with the increase of longevity and effective therapeutic measures for erectile disfunction. The false belief that sexual activity ceases to exist in older age groups must, therefore, be abandoned.

Keywords: Syphilis. Hard chancre. Chancre. Primary syphilis. Aged.

#### RESUMO

Introdução: A sífilis é uma infecção sexualmente transmissível (IST) causada pelo *Treponema pallidum*. A doença tornou-se uma epidemia nas últimas duas décadas. Tem curso variável e é, muitas vezes, assintomática. Afeta múltiplos sistemas, podendo ter consequências graves ou mesmo de morte. Objetivo: Apresentar um caso de lesão exuberante associada à sífilis em um homem idoso. Relato de caso: Homem de 85 anos buscou atendimento por lesão peniana indolor. Relatou ter tido contato sexual oral (felação) com uma profissional do sexo seis semanas antes do surgimento desta lesão. Ao exame físico, observou-se uma úlcera de 3 a 4 cm no sulco balanoprepucial, com destruição do tecido subcutâneo até a fáscia de Buck. Sua borda era infiltrada e seu fundo, vermelho cárneo e limpo. Identificava-se linfadenomegalia bilateral com linfonodos elásticos, móveis e indolores. O teste imunocromatográfico rápido para sífilis foi positivo, sendo negativo para HIV, hepatite B e hepatite C. O tratamento foi realizado "in loco" com penicilina benzatina intramuscular na dose total de 2.400.000 UI. Conclusão: Ainda que seja mais comum em pessoas mais jovens, a sífilis deve ser sempre considerada entre os diagnósticos diferenciais das lesões genitais em idosos. Muitas pessoas idosas preservam a atividade sexual, especialmente com o aumento da longevidade e das medidas terapêuticas para disfunção erétil. A falsa crença que a atividade sexual deixa de existir em faixas etárias mais avançadas deve, portanto, ser abandonada. Palavras-chave: Sífilis. Cancro duro. Sífilis primária. Cancro gigante. Idosos.

#### INTRODUCTION

Syphilis is a sexually transmitted infection (STI) caused by the Treponema pallidum. The disease is polymorphous and has an unpredictable course that can be asymptomatic or alternate clinical silence and the presence of manifestations(1). The primary lesion typically consists of an erosion or shallow ulcer that occurs over an indurated base in conjunction with regional lymphadenopathy. During the secondary phase, constitutional symptoms, mycropolyadenopathy, and mucocutaneous lesions are common and, in its tertiary phase, it may affect any bodily system-predominantly the neurologic and/ or the cardiovascular systems. Permanent dysfunction or even death may occur<sup>(1)</sup>. The disease has turned into an epidemic over the last two decades, with a significative increase also in high-income countries since the beginning of the years 2000<sup>(2)</sup>. Low and medium-income countries, with already overburdened health systems, are disproportionately affected<sup>(3)</sup>. In 2002, 213.129 were reported to the Brazilian Ministry of Health (99,2 cases per100.000 population).

Among pregnant women, 83,024 were detected, out of which 26,468 resulted in congenital syphilis. Detection rates have been steadily increasing, showing a 33.8% rise between 2020 and 2022<sup>(4)</sup>.

#### **OBJECTIVE**

To report a case of syphilis caused by *Treponema pallidum* in an elderly individual, emphasizing the significance of early diagnosis in genital ulcers.

#### CASE REPORT

An 85-year-old Caucasian male was seen at a public dermatology clinic in Porto Alegre, in the South of Brazil, complaining of a painless penile lesion which started two weeks before the consultation. He reported having had an oral sexual relationship with a female sex worker six weeks prior to the presentation of the lesion. No other current health problems, allergies, or medical treatment were disclosed. He denied having syphilis or any other STI in the past. Because of partial cognitive deficit, he was accompanied by relatives. The patient and the accompanying relatives provided formal consent for the publication of the case and the clinical image, which is the requirement for clinical case presentations<sup>(5)</sup>. The physical exam revealed a deep ulcer

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measuring three to four centimeters that reached the subcutaneous tissue down to the Buck's fascia. The ulcer presented a fleshy red colored clean floor, a punched-out edge, and an infiltrated border (**Figure 1**). Palpation of the inguinal regions revealed bilateral, multiple, non-tender, elastic, and movable enlarged lymph nodes, also known as *la pléiade ganglionnaire de Ricord*. Consonant with the classical description, one of them presented an unequivocally larger diameter.

The on-site rapid immunochromatographic test for syphilis was positive, while the tests for hepatitis B and C were negative. Considering the available epidemiological, clinical and laboratory data, performing a biopsy was considered ethically inadmissible. A direct test for *T. pallidum* was not available and the VDRL resulted reagent up to a titration of 1:16. On-site treatment consisted of 2.400.000 UI of benzathine-penicillin intramuscularly (1.200.000 in each buttock). Besides gentle cleansing, no topical treatment was recommended. The lesion disappeared after treatment, but despite our recommendations, neither the patient nor his relatives came back for a sero-logical follow-up.

The primary lesion of syphilis is denominated hard chancre. The morphology of the lesion varies greatly, and atypical lesions have been even considered the rule rather than the exception by



**Figure 1** – Deep three to four-centimeter-wide ulcer. It reached the subcutaneous tissue down to the Buck's fascia. Its floor was fleshy red colored clean floor, a punched-out edge, and an infiltrated border. Collection of author Dr. Mauro Ramos.

some authors<sup>(6)</sup>. Large and deep lesions are not common though, and they may be referred to as giant chancre when larger than two centimeters. Its occurrence is associated with immunode-pression states, such as AIDS, malnutrition, alcohol, or other drug related problems<sup>(7)</sup>.

#### **DISCUSSION**

Syphilis and other STI must be considered in the differential diagnosis, especially herpes simplex, chancroid and donovanosis. Rapid immunochromatographic tests are a valuable tool for the evaluation of genital ulcers<sup>(8)</sup>. Other infectious diseases may also cause genital ulcer diseases, and long-lasting lesions demand diagnostic exclusion of neoplastic processes, especially when occurring in the elderly<sup>(8)</sup>. Our case reinforces the inclusion of STI in the differential diagnosis of genital ulcers regardless of the patients' age. Advances in the treatment of erectile dysfunction may be associated with increased STI incidence in this age group. Sexual activity must also be discussed when elderly patients are in the consultation room.

#### **Strengths and Limitations**

The case presents a very illustrative description of an exuberant lesion of syphilis in an age group that is generally considered as to be at "low risk" for sexually transmitted infections. Thus, it stresses the absolute necessity to be highly suspicious of syphilis in all cases of genital ulcer diseases. The absence of a *T. pallidum* direct identification test and the loss of serological follow-up could be considered a limitation of this presentation. However, epidemiological, clinical and evolution of the lesion make another diagnosis other than primary syphilis extremely unlikely.

#### **CONCLUSION**

In spite of being more common among younger individuals, syphilis should be always considered in the differential diagnosis of genital ulcers, regardless of the patient's age. Many aged people keep an active sexual life especially with the increase of longevity and effective therapeutic measures for erectile dysfunction. The false belief that sexual activity ceases to exist in older age groups must, therefore, be abandoned.

#### Participation of each author

MCR: Conceptualization, Investigation, Writing – review & editing. AGR: Formal analysis, Investigation, Writing – review & editing.

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## **Conflicts of interest**

The authors declare no conflicts of interest.

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