

SYPHILIS AMONG HIV SERODISCORDANT PARTNERS ASSOCIATED WITH HUMAN PAPILLOMAVIRUS INFECTION IN A BISEXUAL MAN

SÍFILIS ENTRE PARCEIROS SORODISCORDANTES PARA HIV ASSOCIADA À INFECÇÃO POR PAPILOMAVÍRUS HUMANO EM UM HOMEM BISEXUAL

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ABSTRACT

Introduction: Syphilis and HIV infections are sexually transmitted infections whose diagnosis and treatment contribute toward preventing congenital transmission. **Objective:** To report a case of three sexually transmitted infections detected in a male partner during Couple Consultation and syphilis in the female partner during prenatal care. **Case report:** A 34-year-old black female G2P1 pregnant woman was referred to an outpatient clinic of sexually transmitted infections in Vitória, Brazil, reporting a 30-day evolution of painless papular lesions in the external genitalia, suggestive of condylomata lata. Nontreponemal tests were positive for syphilis and negative for HIV. The husband reported unprotected receptive anal intercourse and possessed anal condylomatous lesions and perianal condylomata lata. He was positive for both HIV and syphilis. Histopathological findings showed low-grade HPV lesions and the PCR test found 16, 39, and 53 HPV subtypes. Treatment with benzathine penicillin G was successful for both partners. **Conclusion:** This study emphasizes the need for Couple Consultation during pregnancy to identify and treat possible sexually transmitted infections.

Keywords: HIV; papillomaviridae; syphilis, congenital; sexually transmitted infections; sexual partners.

RESUMO

Introdução: As infecções por sífilis e HIV são infecções sexualmente transmissíveis cujo diagnóstico e tratamento contribuem para a prevenção da transmissão congênita. **Objetivo:** Relatar um caso de três infecções sexualmente transmissíveis detectadas em um parceiro masculino durante a consulta do casal e sífilis na parceira durante o pré-natal. **Relato de caso:** Uma gestante, negra, G2P1, 34 anos, foi encaminhada a um ambulatório de infecções sexualmente transmissíveis em Vitória, Brasil, relatando uma evolução de 30 dias de lesões papulares indolores na genitália externa, sugestivas de condiloma lata. Os testes não treponêmicos foram positivos para sífilis e negativos para HIV. O marido relatou relação sexual anal receptiva desprotegida e possuía lesões condilomatosas anais e condiloma lata perianal. Ele testou positivo tanto para HIV quanto para sífilis. Os achados histopatológicos mostraram lesão de HPV de baixo grau e o teste de PCR encontrou subtipos de HPV 16, 39 e 53. O tratamento com penicilina benzatina G foi bem-sucedido em ambos os parceiros. **Conclusão:** Este estudo enfatiza a necessidade de consultas de casal durante a gravidez para identificar e tratar possíveis infecções sexualmente transmissíveis.

Palavras-chave: HIV; papillomaviridae; sífilis congênita; infecções sexualmente transmissíveis; parceiros sexuais.

INTRODUCTION

Sexually transmitted infections (STI), especially HIV/AIDS, syphilis, and viral hepatitis B infections, are a severe problem during pregnancy due to the possibility of congenital transmission to the fetus^(1,2). Vertical of STI transmission can lead to several problems

for a newborn. Infants infected by syphilis (congenital syphilis) may experience severe sequels or death; however, this can be prevented by timely treatment of the mother with syphilis during pregnancy⁽³⁾. Moreover, pregnant women should always undergo HIV and other serology tests^(1,2). Women should, at some point in their life-time, undergo investigation by vaginal cytology and genital examination for Human papillomavirus (HPV) induced lesions and other STI, and the prenatal period is an ideal opportunity to evaluate women and their sexual partners. Thus, Couple Consultation should be performed in order to identify and treat any such diseases during prenatal care⁽²⁾. The case reported here regards a pregnant woman recently diagnosed with syphilis and whose sexual partner presented three STI diagnosed in such prenatal consultations.

OBJECTIVE

To report a case of three STI detected in a male partner during Couple Consultation and syphilis in the female partner during

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prenatal care at a University hospital in the southeast region of Brazil.

CASE REPORT

A 34-year-old black female G2P1 patient, sought an STI outpatient clinic at the University Hospital in Vitória, Brazil, with complaints about multiple painless papular lesions on the external genitalia that had developed over the previous 30 days. On this occasion, she was six weeks pregnant and, upon examination, erythematous plaque lesions were observed in the external genital region, suggestive of condylomata lata (**Figure 1A**). She was feverish with palpable bilateral inguinal lymph nodes. The STI tests conducted included a non-treponemal test, Venereal Disease Research Laboratory test (VDRL), with a result of 1/128, a positive rapid treponemal assay, and the results showed HIV-negativity. The fluorescent treponemal antibody absorption (FTA-ABS) test was positive for both sexual partners. Darkfield microscopy was not performed, as it was not available. Tests for other disorders were negative, as well as other viral markers. Vaginal discharge material was collected, for Gram stain, and material from the endocervix, for culture of gonococcus; however, vaginal Gram

stain was without abnormalities and the endocervix culture for gonococcus was negative.

Her husband reported in a private interview the occasional use of cocaine and unprotected anal sex with unknown men. His rapid tests results were positive for HIV and syphilis; furthermore, he had a VDRL of 1/128. He presented a perianal lesion suggestive of condylomata lata (**Figure 1B**) that was adequately treated by two weekly doses of 4,800,000 IU penicillin intramuscularly and HPV-induced lesions along the anal canal (**Figure 1C**), treated by surgical ablation. Pathological analysis of the anal canal biopsy revealed an acanthotic well-differentiated squamous epithelium with parakeratosis and papillomatosis, mild nuclear atypia and perinuclear halos, consistent with koilocytosis, a cytopathic effect of HPV (**Figures 1D and 1E**).

HPV RT-PCR was positive for the subtypes 16, 39, and 53. The male partner had condyloma acuminata and condyloma lata, as well as HIV infection. The pregnant woman was treated with 4,800,000 IU of benzathine Penicillin G for her recent secondary syphilis in pregnancy by intramuscular injection. The treatment choice was applied in two doses, with an interval of seven days, and 2.4 million for each treatment that was divided into 1.2 million IU in each gluteus, at each application. She was referred to the prenatal care and remained HIV-negative throughout the whole prenatal period.

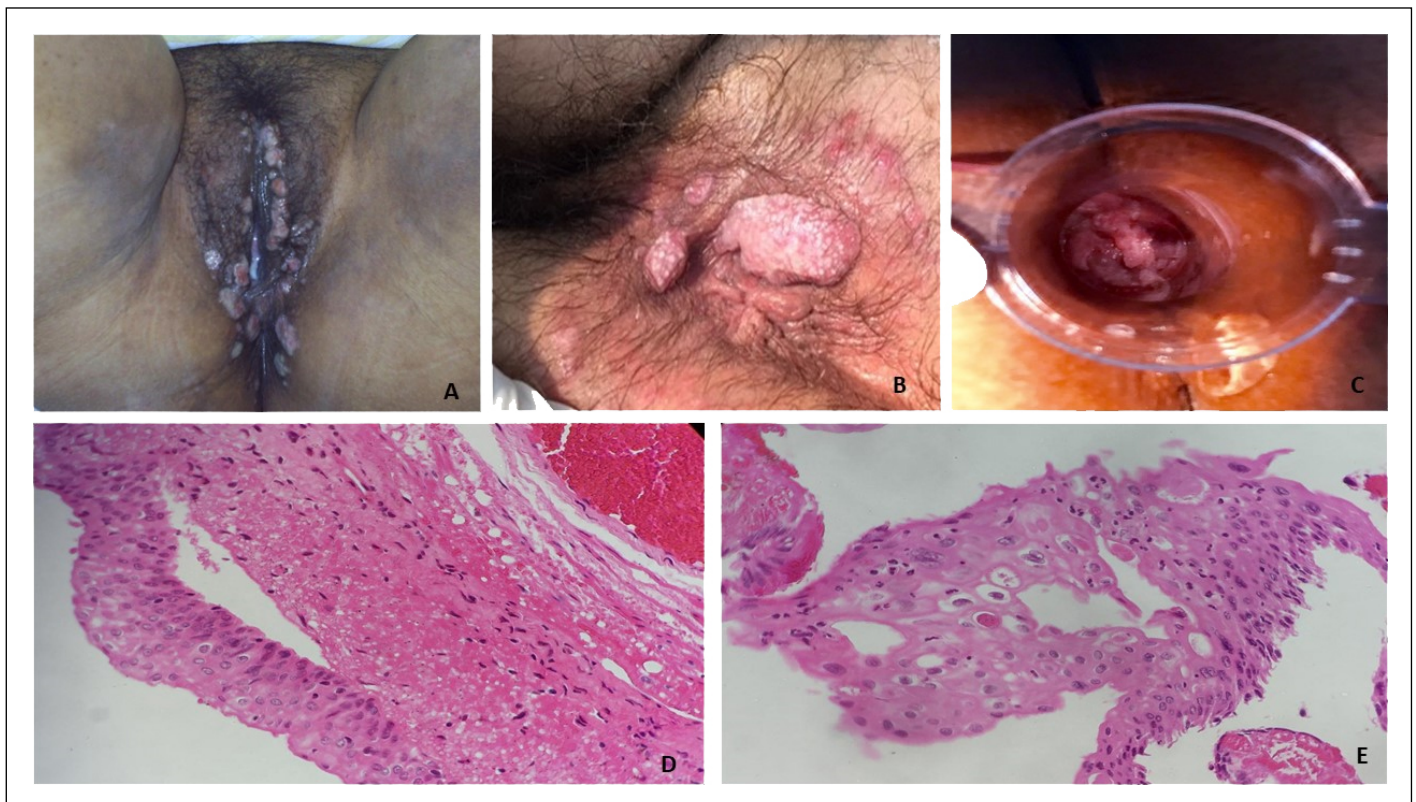


Figure 1 – (A) Multiple papular lesions in erythematous plaques, female patient's external genitalia. (B) Condylomata lata, male patient's perianal area. (C) Intra anal condylomatous lesions, male patient. (D) Superficial maturation arrest of atypical squamous epithelium. Low grade squamous intraepithelial lesion correlates with the clinical term 'condyloma acuminata.' HE, Objective 20x. (E) Superficial squamous epithelial cells with perinuclear — halo and nuclear features of low-grade squamous intraepithelial lesion — with karyomegaly, nuclear hyperchromatism, and irregular nuclear membranes (Koilocytes) HE, Objective 40x.

DISCUSSION

Adequate prenatal care with vigilant screening prenatally and at delivery is critical to reduce congenital syphilis and other congenital sexually transmitted infections. Adequate investigations must be performed during prenatal care and serologic titers for syphilis can be tested monthly in women at high risk of syphilis reinfection⁽¹⁾. Measurement of antibodies is very important for the screening and diagnosis of syphilis. Quantitative maternal nontreponemal titer, especially when higher than 1:8, might be an indicator of current infection⁽⁴⁾. Serological diagnosis for syphilis is based on the detection of both nontreponemal antibodies and treponemal-specific ones. In this case, the couple was VDRL 1/128, which suggests acquired syphilis; moreover the FTA-ABS test was positive for both sexual partners, indicating the disease. The couple in this study received effective treatment for syphilis, as recommended by The Brazilian Guidelines^(1,3,4), resulting in a decrease in the VDRL titer during pregnancy and avoiding congenital syphilis. Benzathine penicillin remains the treatment of choice for syphilis, and no penicillin-resistant strains have yet been documented⁽¹⁾. In HIV serodiscordant couples during pregnancy, as in this case, the HIV negative partner should be tested monthly and advised about condom usage^(1,4). Furthermore, due to the oncogenic potential of HPV infections, patients should reinforce preventive methods. Vaccination against HPV is currently an available resource, which has produced positive results in the patients evaluated, according to some recent studies. In this case, vaccination was offered to the man⁽⁵⁻⁷⁾. Men who have sex with men (MSM) should be stimulated to be vaccinated against HPV⁽⁷⁾. Despite the difficulties, the man was adequately treated for anal HPV and was referred to a specialized HIV service in order to receive antiretroviral therapy and medical accompaniment with counseling for condom use and anal cancer screening. Anal HPV infection is common among young HIV-positive men, particularly in MSM and in those with anal cancer. Investigation in at-risk patients will increase the probability of identifying anal intraepithelial neoplasia⁽⁸⁾. According to the literature, low-grade anal lesions can be caused by high-risk HPV, as in this case⁽⁹⁾.

Histopathological findings demonstrated a low-grade squamous intraepithelial lesion (LSIL) characterized by well-differentiated atypical squamous epithelium⁽¹⁰⁾. HPV RT-PCR investigation was positive for the high-risk subtypes 16, 39, and 53.

The prevention of STI infections is based on various approaches, such as correct risk valuation, informing individuals of high-risk behaviors, effective diagnosis, treatment, recommendation, and follow-up of infected individuals and their partners, such as the treatment of this pregnant woman and her partner⁽¹¹⁻¹³⁾.

In addition, health care professionals should be able to clinically diagnose STI and to provide proper and effective treatment, thus decreasing maternal-fetal complications^(3,11).

As a strength of our text, we say that these combinations are not so frequent in medical practice in a prenatal care clinic. That is why it deserves publication. On the other hand, being a Case Report is a limitation.

CONCLUSION

Syphilis and HIV infections are diseases that, with early diagnosis and treatment of both partners, and when correctly performed,

contribute toward the decline of congenital syphilis and HIV transmission. Couple Consultation during prenatal care also enables the diagnosis and treatment of other STI-associated infections, as observed in this case report without prejudice. It is important that health professionals be available and qualified to identify and treat these infections.

Participation of each author

Concept and design: NATB, MCOS, and HLBR. Acquisition of the data: HLBR, SLPA, BNB, and AMPS. Histopathology analysis and interpretation: MCOS. Drafting of the article: HLBR, NATB, and JVJC. Critical revisions for important intellectual content: HLBR, DCF, AMPS, MCOS, and NATB. Final approval of the version to be published: HLBR, NATB, SLPA, and DCF. All authors issued constructive comments during the writing and substantially contributed to and approved the final manuscript.

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Conflict of interests

No conflict of interests to declare.

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