Acquired Syphilis with Flat Condyloma in a 3 year-Old Girl: A Case Report

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Abstract

The incidence of syphilis in young children is very low, with acquired syphilis exceptionally rare. A 3 year-old girl presented to our service with a reddish-brown rash on the external genitals and perianal area. The rash had been apparent for a period of 1 week. The girl was asymptomatic and had

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ABSTRACT

The incidence of syphilis in young children is very low, with acquired syphilis exceptionally rare. A 3 year-old girl presented to our service with a reddish-brown rash on the external genitals and perianal area. The rash had been apparent for a period of 1 week. The girl was asymptomatic and had no history of sexual contact. Syphilis was suspected and the *Treponema pallidum* Particle Agglutination Test (TPPA) was found to be positive as well as the Rapid Plasma Reagin Ring Card Test (RPR), with a titer of 1:64. The girl was diagnosed with toddler acquired secondary syphilis. The girl was cured of the disease after three treatments with penicillin. This report points out the need for clinicians to be aware of non-sexually transmitted syphilis, acquired in daily life, by children without a history of sexual contact.

KEY WORDS:

Acquired syphilis; Flat condyloma; Young child

INTRODUCTION

At present, the global prevalence of syphilis is a serious medical issue. It is estimated that there are more than 10 million new cases of syphilis each year, with more than 90% of the cases within developing countries.[1] The incidence of syphilis in China has also been increasing year by year. Fujian is a provinces with a high incidence of syphilis. The incidence of in young children with syphilis is less than 0.5/100,000 individuals, with the incidence of acquired syphilis in young children much less common.[2]

CLINICAL REPORT

A 3.3 year-old girl was found, a week ago, by her mother to have a scattered pink rash, the size of a soybean, on her perianal area and her vulva. The child had no history of sexual contact. The mother consulted a local clinician for diagnosis and treatment for eczema. With treatment the rash did not subside and gradually increased in size.

PAST MEDICAL HISTORY

The child was the mother's first. Intrauterine pregnancy was 38+2 weeks, with left occiput anterior delivery by cesarean section. Birth weight was 3300 g and infant length 0.50 m, with normal development. The child was healthy, without hereditary disease, history of surgery, or blood transfusion, and was not sexually assaulted.

FAMILY HISTORY

Her parents are healthy and had no sexual contact before marriage. Her parents denied extramarital sexual contact and had no family history of similar or other infectious diseases.

PHYSICAL EXAMINATION

The girl's perianal and external genital areas exhibited scattered round or round-like reddish-brown papules, with a round or round-like, red or pink, moist surface, and clear boundaries (Fig. 1). No skin lesions were found on her trunk, limbs, or in her mouth. The virgin membrane was present.

LABORATORY EXAMINATION

The *Treponema pallidum* Particle Agglutination Test (TPPA) was positive, with a value of 22.56 s/co. The Rapid Plasma Reagin Ring Card Test (RPR) was positive, with a titer of 1:64. Syphilis serological analysis of her parents, two grandparents, and one grandmother were negative. However, one grandfather was TPPA and RPR positive, with a titer of 1:16.

TREATMENT

Based on typical clinical manifestations and laboratory findings the child was diagnosed with secondary syphilis. Based on the guidelines for the diagnosis and treatment of syphilis in China,[3] the infectious disease was reported according to regulations and the child administered benzathine penicillin 750,000 U, intramuscularly. The administration was bilateral hip injection, once a week for 3 weeks.

OUTCOME

After treatment, the rash completely disappeared in the third week (Fig. 2). One month, 3 months, and 6 months post treatment, RPR titers were 1:8, 1:4, and 1:2, respectively.

DISCUSSION

Humans are the only source for syphilis, with most infections due to sexual intercourse. Few individuals are infected indirectly such as by blood transfusion or close contact. For young children, there is often no history of sexual contact or abuse. Such cases are rare and can be easily misdiagnosed or missed. This case was initially misdiagnosed as eczema. It has been reported that close contact with children infected with syphilis, especially in overcrowded or poor family situations, increases the risk of close sexual transmission of syphilis. Infected family members or caregivers are a particular risk for children.[4]

The child reported herein was healthy, with no hereditary disease, no history of surgery, blood transfusion, or sexual assault. Her mother tested negative for syphilis during pregnancy. To determine the source of infection and mode of transmission, close contacts were tested. Her parents, two grandparents, and a grandmother were serologically negative for syphilis. However, one grandfather was TPPA and RPR positive. Based on this information, it can be inferred that this case of syphilis was due to close contact during daily life.

CONCLUSION

By this case report, we remind clinicians to be aware of non-sexually transmitted acquired syphilis in children without a history of sexual contact. Further, children with syphilis should be educated regarding the sexual and non-sexual modes of disease transmission in order to prevent further occurrence.

FUNDING INFORMATION

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Conflict of Interests

The authors declare that they have no competing interests.

CONSENT

Published with the written consent of the patient.

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Figures

Figure 1. Flat papules visible on the perianal area and vulva. The size of the papules was similar to a bean or walnut. The surface of the area was moist, red or pink, and well defined.

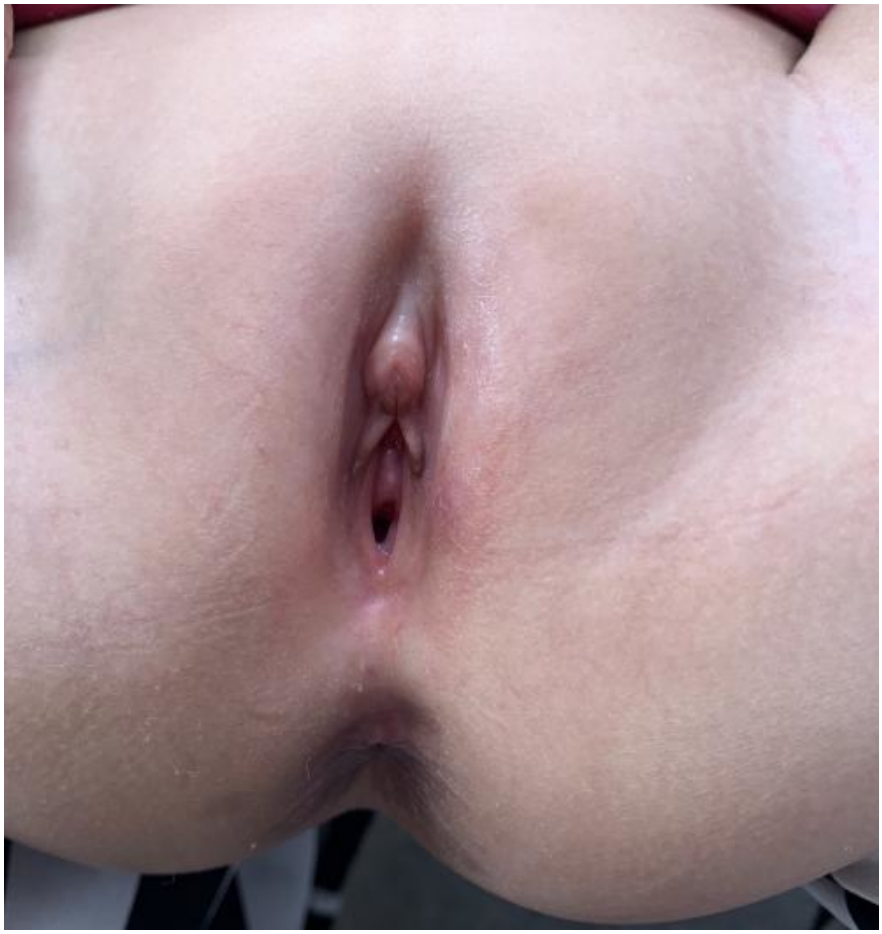

Figure 2. Skin lesions subsided 3 weeks after penicillin treatment.