

Congenital Syphilis: A Case Report

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Abstract

Congenital syphilis is a chronic infectious disease caused by *Treponema pallidum*, a spirochete acquired in-utero by the fetus. Syphilis continues to affect pregnant population, in spite of various measures to control. Here we report a case of congenital syphilis in a two year old male child.

Key words: Penicillins; Spirochaetales; Syphilis, Congenital; *Treponema pallidum*

Introduction:

Congenital syphilis is a chronic infectious disease caused by *Treponema pallidum*, a spirochete acquired in-utero by the fetus.¹ Occasionally, it can be acquired through direct contact with infectious lesions in the birth canal or on the perineum of the mother during the birth process.² Syphilis continues to affect pregnant population, in spite of various measures to control.³ Antenatal screening for syphilis is cost beneficial and cost effective and penicillin is effective and cheap, still congenital syphilis remains an important cause of various systemic effects such as neurological, developmental and musculoskeletal disability and death in infants, especially in resource poor settings.⁴ The most common cutaneous finding of congenital syphilis is a symmetrical, coppery red maculopapular rashes whereas less commonly, various other eruptions may be present in the form of acral skin desquamation, acral vesiculobullae (pemphigus syphiliticus), mucous patches, petechiae, erythema multiforme-like targetoid lesions, perioral/perinasal/perianal fissures, and condylomata lata.²

Case report

A two years old male child presented to Dermatology OPD of Gandaki Medical College Teaching Hospital, Pokhara with asymptomatic foul smelling raised

lesion over perianal region since five months. The lesion started as small raised single lesion which gradually progressed to the present form over the given duration. Patient's mother gives no history of any form of trauma/injury to the site or sexual assault of the child. No history of diarrhea, abdominal pain and blood in stool. He was born by normal, uneventful vaginal delivery to non-consanguineous parents and had no developmental impairment.

On examination, he had single erythematous, cerebriform plaque measuring about 3 x 4 cm in size over perianal region. The lesion was soft to firm and non-tender on palpation (Figure 1). There were no other significant cutaneous lesions. Systemic examination was within normal limits. Our differential diagnoses were condyloma lata, cutaneous tuberculosis, cutaneous crohn's disease and perianal langerhans cell histiocytosis.

On investigation, venereal disease research laboratory (VDRL) was reactive (1:64) and TPHA was positive. Other tests like complete blood count, serum AST, ALT, creatinine were within normal limits, HIV, Hepatitis

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serology were negative and urine routine examination was normal. Mother's VDRL turned out to be reactive (1:8) and TPHA was positive.

From history, examination and blood investigations we made the diagnosis of congenital syphilis. But due to the unavailability of Benzathine Penicillin in our region, we had to refer patient to other centre in Kathmandu. On follow up after the completion of treatment, the patient presented with healing lesion with decrease in size and thickness.



Figure 1: Erythematous, cerebriform plaque measuring about 3 x 4 cm in size over perianal region.



Figure 2: Post treatment photograph showing healing lesion with decrease in size and thickness

Discussion

Congenital syphilis is divided into early and late congenital syphilis. The early congenital syphilis has onset of clinical manifestations before two years of age while the late congenital syphilis has onset of clinical manifestations after two years of age (usually manifesting around puberty).² It is a serious public health issue. Once believed to be a rare disease in developed countries, but recent data suggest that there is a surge in the incidence of congenital syphilis in North America and Europe.²

According to WHO, new estimates published show that there were more than half a million (around 661,000) total cases of congenital syphilis in 2016, resulting in over 200,000 stillbirths and neonatal deaths.⁵ As per the report on global sexually transmitted infection surveillance, 2018, congenital syphilis rate (cases per 100,000 live births, median and range) as reported by 59 countries, by region, 2016–2017 in different WHO regions are: 48.9 (African region), 22.8 (Region of the Americas), 0.9 (Eastern Mediterranean region), 0.4 (European region), 0.9 (South-East Asia region), 5.2 (Western Pacific region) and 5.2 (Overall).⁶

According to National guidelines on case management of sexually transmitted infections, revision 2014, treatment of congenital syphilis is:

- Early congenital syphilis (<2years of age) with clinical CNS involvement or with abnormal CSF: Aqueous procaine penicillin, 50,000 IU/kg, single daily dose IM for 10 days; and normal CSF: Benzathine penicillin 50,000IU/kg IM stat.
- Late congenital syphilis (>2years of age): Aqueous crystalline penicillin, 300,000 IU/kg, daily IM, in divided doses, for 10 days- not to exceed 1.2 million units daily.
- For penicillin allergic children after the first month of life: Erythromycin 10mg/kg, four times daily for 30 days.⁷

In a study carried out by HRP, the Special Programme of Research, Development and Research Training in Human Reproduction in WHO's Department of Reproductive Health and Research and the Clinton Health Access Initiative (CHAI) over two years (2014-2016), of the 114 countries approached, 95 had evaluable information and out of these 95 countries, 39 (41%) reported a Benzathine Penicillin G shortage, and 56 (59%) reported no shortage. Ten of the 95 countries reported the use of alternative antibiotics including ceftriaxone, amoxicillin, and erythromycin.⁸

Conclusion

We are reporting this case because of rarity of the disease, and atypical presentation of the patient.

Mother to child transmission of the syphilis can be prevented if properly investigated and treated during antenatal visit. Benzathine Penicillin is very effective against syphilis. Hence, there should be easy availability of this drug in every corner.

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