

Congenital syphilis, still a reality

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Abstract

Congenital syphilis is a potentially serious pathology affecting newborns of infected mothers. Even one case of congenital syphilis is a sentinel public health event, since timely diagnosis and treatment of syphilis infected pregnant woman should prevent transmission almost entirely. Here, we are reporting a case of early symptomatic congenital syphilis presented with severe desquamating papulosquamous lesions over multiple body parts along with erosive lesions around oral cavity and nostrils.

Key words: Congenital syphilis, treponema pallidum, venereal disease research laboratory

INTRODUCTION

Congenital syphilis is a potentially serious pathology affecting newborns of infected mothers.^[1] In the third-world countries, 3-15% of the women are infected with syphilis in their reproductive age.^[2]

As per the World Health Organization (WHO), in India, 65.4% women attending antenatal care were tested for syphilis at the first visit and 0.3% were seropositive for syphilis.^[3] Young females without adequate antenatal care have 95% chance of transferring the infection to their fetus transplacentally. The WHO estimates that every year, maternal syphilis is responsible for 25% abortions or still birth and 25% of newborn are low birth weight or have serious infections.^[4] Besides abortions, still births, and perinatal deaths, live born babies may have early congenital syphilis (before two years of age) and late congenital syphilis (after two years). Stigmata - including scars and deformities which are the consequences of early or late congenital syphilis.^[5]

Despite the fact that congenital syphilis can be prevented by detection and treatment of infected expectant mothers, it still occurs with distressing frequency in many parts of the world.^[5] We have reported a case of early symptomatic congenital syphilis. This case is presented in order to emphasize that congenital syphilis still exists and global antenatal screening is mandatory to prevent this serious, yet largely preventable disease.

CASE REPORT

A three month old female child weighing 2 kg normally delivered at term presented with lesions all over the body with oro-genital erosions since 1½ month.

On examination, there were severe desquamating erythematous papulosquamous lesions over face, upper extremities, trunk, buttocks and legs. Multiple superficial erosions were present on palm, soles, genitals, buttocks and natal cleft [Figures 1-3]. Moist erosive lesion with bleeding and crusting were present around oral cavity and nostrils. She had high arched palate without perforation which enables her to suck properly [Figure 4]. Syphilitic snuffles and rhagades were present. Epitrochlear and inguinal lymph nodes were enlarged and rubbery in consistency. Patient had moderate hepatosplenomegaly without cardiac, bone or joint

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Figure 1: Papulosquamous lesions with oral involvement



Figure 3: Erosive lesions over natal cleft



Figure 2: Erosive lesion over genitals



Figure 4: High arched palate with oral erosions

involvement. X-ray of skull and long bones showed no abnormality. Ophthalmic examination including fundoscopy was normal.

On history, it was found that the baby was delivered at home and the mother had not taken any antenatal visits. Mother had a history of lesion over the genital area twice in the past i.e., two years and six month prior to the birth of the patient for which she has taken some treatment from local doctor. The records of the above-mentioned condition or any treatment taken were not available. She is second gravida with h/o of single second trimester abortion during last pregnancy. Father of the baby did not have any history of any sexually transmitted diseases (STDs) but had an h/o unprotected premarital exposure. Her parents had no overt signs of syphilis. Venereal disease research laboratory (VDRL) with dilution of patient was 1:512 while that of parents were 1:64. Parents as well as baby were non-reactive for HIV. Presumptive diagnosis of congenital syphilis was made based on four fold raise in patient titre. Parents

were given benzathine penicillin G 2.4 MU, i.m. in single dose and patient was treated successfully with 1.5 lakh U/day i.m. Procaine penicillin G for 10 days.

DISCUSSION

The case definition of congenital syphilis as per Centers for Disease Control (CDC), USA, includes newborns with clinical evidence of active syphilis, as well as those who do not present any signs and are born to the mothers with untreated or inadequately treated syphilis.^[6]

Congenital syphilis is a multisystem infection caused by *Treponema pallidum* and transmitted to the fetus via the placenta.^[6] The risks of vertical transmission and fetal diseases are directly related to the stage of maternal syphilis during pregnancy. It is estimated that in women with syphilis of a few years duration, about half of the pregnancies will be affected, with one half of the affected pregnancies ending in stillbirth (including miscarriages), and the other half in perinatal death or serious neonatal infection (congenital syphilis).^[7]

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About 60% of infants born with congenital syphilis are asymptomatic at birth. Symptoms develop within the first two months of life.^[8] Early congenital syphilis usually manifest as characteristic skin lesions, such as vesiculobullous or a macular copper-colour rash on the palms and soles and papular lesions around the nose and mouth and in the diaper area, as well as petechial lesions. Other features include rhinitis, bone abnormalities, chorioretinitis, lymphadenopathy, hepatosplenomegaly, and nephrotic syndrome. Late congenital syphilis, which presents after two years of age, may have a variety of skeletal and dental defects, interstitial keratitis, and eighth nerve deafness (Hutchinson's Triad).^[9] Early identification and treatment of syphilis will help to prevent these outcomes.

Due to limited resources a presumptive diagnosis of congenital syphilis is frequently the basis for treatment of newborn and the presumption of transmission is raised by the positive serology of the mother with inadequate antenatal care. Treatment is based upon a maternal positive nonspecific treponemal test at pregnancy or delivery in combination or not with clinical symptoms of newborn. However, confirmation of syphilis requires demonstration of syphilis spirochete in the tissues or body fluids by detection of anti-treponemal IgM antibodies or by DNA or RNA amplification, which could not be done in this case. Hence, a presumptive diagnosis of syphilis was made as per CDC criteria.^[6]

CONCLUSION

Congenital syphilis represents a significant financial and emotional burden in developing countries. Even one case of congenital syphilis is a sentinel public health event, since timely diagnosis and treatment of syphilis infected pregnant woman should prevent transmission almost entirely.

The report urges greater vigilance and screening for syphilis among pregnant women and newborns, and contributes to the evidence that syphilis is still prevalent among women.

Physicians, especially gynecologists, obstetricians and pediatricians, have to be vigilant in order to allow for early diagnosis and appropriate treatment of congenital syphilis.

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