Congenital syphilis: Toward elimination or resurgence??

Dear Sir,

Congenital syphilis, once an entity moving toward elimination is now in the limelight for the last 5 years. The global congenital syphilis rate in 2016 was estimated to be around 473 per 100,000 live births[1] and congenital syphilis is estimated to occur in 25–75% of exposed infants with a prevalence of 1,575,000 cases annually.[2] Diagnosis of congenital syphilis is difficult because more than half of the infants are asymptomatic in the early stage and signs in symptomatic infants are nonspecific.[3] Here we report two cases of congenital syphilis diagnosed incidentally, which reflects the tip of the iceberg.

Case Study 1

A primigravida mother was admitted with symptoms of postpartum eclampsia on the very next day following delivery. A baby girl was born by spontaneous vaginal delivery at 37 weeks of gestational age with a birth weight of 2500 g. On routine screening of syphilis, her VDRL test was reactive up to a dilution of 1:16. Upon further testing by Syphicheck WB Rapid test, the sample yielded a positive report. [Figure 1] However, no clinical lesions were noticed during the physical examination of the mother. Hence, the mother was diagnosed with syphilis incognito and was treated with injection benzathine penicillin G 2.4 million units. The baby's blood sample was also reactive for the VDRL test at a dilution of 1:4. The baby had no skin or mucosal lesions, and the x-ray also showed no long bone radiological abnormalities. The baby was diagnosed as a case of possible congenital syphilis and treated with benzathine penicillin G 1.25 million units.

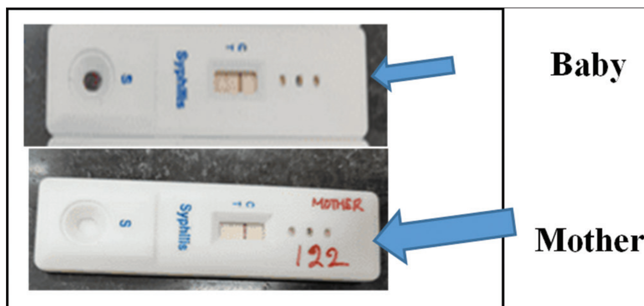

Figure 1: Syphicheck WB Rapid test of mother and baby (Case 1)

Case Study 2

A multigravida mother with the diagnosis of sepsis was admitted with her one-day-old baby boy. Small genital nodular lesions were noted during routine examination of the mother. She had a history of syphilis in her previous pregnancy. She received erythromycin 750 mg QID for two weeks during her antenatal check-up (ANC) in this current pregnancy. Blood samples from both the mother and the baby were sent for routine tests. The mother was non-reactive for HIV, HBsAg, and anti-HCV. The qualitative test result was reactive for both the mother and the baby. A quantitative RPR test of the same samples gave a titer of 1:4 and 1:16 for the mother and the baby, respectively. [Figure 2] Syphicheck WB Rapid test was positive for both the mother and her baby. The baby had no signs and symptoms of syphilis. The baby was diagnosed as a confirmed case of congenital syphilis and treated with benzathine penicillin G 1.25 million units.

Discussion

The risk of vertical transmission and fetal disease is related to the stage of acquiring maternal syphilis during pregnancy. Syphilis is a curable disease and the risk of congenital syphilis can be minimized by proper antenatal check-ups during pregnancy.[4] In the first case, no antenatal care was done whereas in the second case, mother had ANC visits in the third trimester resulting in the transmission of infection to the fetus. The increasing trend of congenital syphilis in our country requires awareness of the at-risk population and universal registration of pregnant women for antenatal care. Strengthening health education programs and proper implementation of STD control programs is needed at the current time.

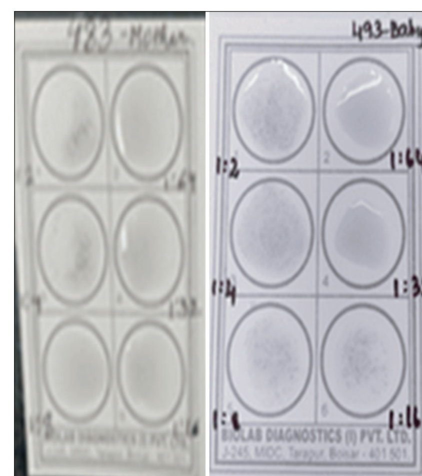

Figure 2: RPR Test (Quantitative) result from both mother and baby showing 4-fold rise in titer (Case 2)

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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