DETECTION OF TREPONEMA PALLIDUM DNA IN THE BREAST MILK OF A FEMALE SYPHILIS PATIENT IN SHENZHEN, CHINA

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Introduction To investigate whether there is Treponema pallidum (TP) DNA in the breast milk of female patients with syphilis and provide scientific evidence for breast-feeding for female syphilis patients after childbirth.

Methods A polymerase chain reaction (PCR) technique was used for the detection of TP DNA in the breast milk of female syphilis patients in Shenzhen, China.

Results An early syphilis patient after six months childbirth with hard chancre in the labia majora and secondary syphilitic eruption in the trunk and limbs had toluidine red unheated serum test (TRUST) positive with the titer of 1:128 and Treponema pallidum particle agglutination (TPPA) positive and had TP DNA detected in her breast milk by PCR technique. Her six-month-old daughter had TRUST positive with the titer of 1:256 and TPPA positive with secondary syphilitic eruption in the trunk and limbs. The mother syphilis patient received 3 weekly intramuscular injections of 2.4 million units of benzathine penicillin G (BPG) on both sides, once a week. After one weekly intramuscular injection of BPG, TP DNA wasn’t detected in the breast milk of the female patient and remained negative after two weekly injection of BPG in the breast milk of the female patient. Ten cases of syphilis before and during pregnancy received BPG treatment in our hospital all had no TP DNA detected in their breast milk.

Conclusion Female early syphilis patients never received BPG treatment have TP DNA detected in their breast milk and are unable to breast-feed their babies temporarily. Female syphilis patients received BPG treatment have no TP DNA detected in their breast milk and can breast-feed their babies but need to be followed-up regularly.

P2.51 CLINICAL AND SEROLOGICAL OUTCOMES AFTER RETREATMENT OF SYPHILIS SEROFAST PATIENTS IN GUANGDONG PROVINCE, CHINA

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Introduction A high proportion of syphilis patients (pts) remain serofast with persistent nontreponemal (NT) antibody titers after treatment. It remains unclear whether patients should undergo further monitoring, retreatment, or lumbar punctures (LP) for cerebrospinal fluid (CSF) analysis. We analysed serofast subjects from China for their clinical characteristics and outcomes after retreatment.

Methods From 2014–2016, we retrospectively analysed data from cohort of syphilis serofast pts evaluated in STI clinics in Guangdong province, China. Serofast status was defined by <4 fold decline in NT-titers at ≥6–12 months after treatment or persistent NT-titers at ≥12–24 months following ≥4 fold decline. All pts with syphilis (except neurosyphilis [NS]) were treated with benzathine penicillin G (BPG) 2.4 million units for 3 weekly doses, and a subset had CSF analysis as per China syphilis guidelines. Treponema pallidum (Tp) PCR testing was performed among pts with whole blood specimens for analysis.

Results We enrolled 133 serofast pts, with a median age of 33 (IQR 31%–43%); 75% were female and 99% were HIV-negative. The initial diagnosis in 14% cases was early syphilis and 86% had late syphilis; 89 (68%) had baseline NT-titers in the range 1:1-1:8. All pts had 3 doses of BPG as initial therapy, of which 74 (56%) received retreatment (51%>3 doses of BPG, 18% non-BPG, 31% BPG+non-BPG). 61 (82%) of those with retreatment failed to show ≥4 fold decline of NT-titers after 1 year. LPs were performed among 82 (62%) pts with median of 2.3 years (3–60 months) since diagnosis; only 4 (5%) had CSF abnormalities, of which one symptomatic patient met criteria for probable NS. Tp-PCR testing was performed in a third of serofast patients and all had negative results.

Conclusion Most serofast cases had an initial diagnosis of late syphilis and presented with low baseline NT-titers. Most pts remained serofast despite retreatment. Among serofast pts who underwent CSF analysis and/or Tp-PCR testing, our findings suggest that persisting Tp infection is unlikely in the absence of symptoms.