LETTER TO EDITOR (VIEWERS CHOICE)

NEONATAL CHIKUNGUNYA - A CASE REPORT

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A single term baby weighing 2.6 kg was born to a 2nd gravida mother by normal vaginal delivery and baby cried immediately and was put on breast feeds. Mother had complaints of high grade fever with joint pains, myalgia one day prior to delivery. About 12 hrs after delivery mother complained that the baby was not sucking well. Random blood sugar was 25mg% and baby was given a bolus of 10% Dextrose, shifted to Neonatal intensive care unit (NICU). Subsequent glucose levels were normal. At around 20 hours of birth, baby developed fever with focal seizures involving the left lower limb with bulging anterior fontanelle. IV phenobarbitone was started along with antibiotics. As the convulsions did not subside with maximum dose of phenobarbitone, IV phenytoin was added. Blood investigations showed hemoglobin of 14.9 gm%, white cell count of 18,600/cumm (80% polymorphs, 16% lymphocytes, 4% monocytes) with micro ESR of 10 at 1 hr, a negative C-reactive protein, calcium 8.6 mg%, sodium 130 meq/L, potassium 4.5 meq/L, chloride 100 Meq/L. Cerebrospinal fluid (CSF) analysis showed protein 304mg%, sugar-66mg%, cells-15/cumm with neutrophils 95% and lymphocytes 5%. Blood as well as CSF culture reports were negative. On day 6, baby started developing edema of all 4 limbs. At this point of time, neonatal chikungunya was suspected. IgM antibody test for chikungunya was sent for both mother and baby and both were tested positive. On day 7 baby started developing hyperpigmentation of face followed by trunk and limbs in 2 days. Antibiotics were stopped and baby was discharged on day 10 on anticonvulsants. Follow up showed complete recovery and pigmentation took around 2 months to disappear.

Chikungunya (CHIK) virus is member of genus Alpha virus in the family of Togaviridae transmitted to humans by vector like Aedes aegypti and Aedes albopictus. The word chikungunya has been derived from a Makonde word meaning "that which bends up". (1) Chikungunya fever epidemics have been reported from several countries around the world. The disease that was silent for nearly 32 years re-emerged in the October 2005 outbreak in India that is still ongoing. (1) The incubation period ranges from 3 to 12 days. The onset is usually abrupt and the acute stage is characterized by sudden onset with high-grade fever, severe arthralgias, myalgias, and skin rash. Swollen tender joints and crippling arthritis are usually evident. (2) Chikungunya fever appears to have a direct impact

on pregnancy with a higher risk of abortion in the first trimester and mother-to-child transmission in the last trimester. In a study from the Reunion Islands outbreak, three out of nine miscarriages before 22 weeks of gestation were attributed to the Chikungunya virus infection documented by positive reverse transcription polymerase chain reaction (RT-PCR) in amniotic fluid. The time of greatest risk of transmission of Chikungunya virus from mother to fetus appears during birth if mother acquired the disease few days before deliver. (3,4) Neonates present at 3-5 days of life with fever, excessive crying, dermatological manifestations like maculopapular rash, nasal blotchy erythema, freckle like pigmentation over centrofacial area, vesiculobullous lesions, apnea, shock, DIC, and neurological manifestation like seizures, disturbed level of sensorium. Diagnosis is made by CHIK IgM and PCR. (3-5) Viral culture is the gold standard for the diagnosis of Chikungunya fever. Reverse transcription polymerase chain reaction and real-time loop-mediated isothermal amplification have also been found to be useful. Serodiagnostic methods for the detection of immunoglobulin M and immunoglobulin G antibodies against Chikungunya virus are more frequently used. (2) Prevention by educating the community and public health officials, vector control measures appear to be the best approach at controlling Chikungunya fever as no commercially available vaccine is available for public use in India for this condition presently.

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