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Case Report

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CONGENITAL DENGUE INFECTION-ESCAPE OF ONE TWIN A CASE REPORT

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ABSTRACT
Dengue is the most prevalent mosquito-borne infection worldwide. Vertical transmission after maternal dengue infection to the fetus and pregnancy losses in relation to dengue infection has been reported. No studies exist in literature have been done to compare the perinatal outcome in a dengue positive mother with twin pregnancy. We recently cared for a mother with heterozygoustwin gestation where one twin was diagnosed to have congenital dengue the second twin was normal. We suspect that the reason for this individual variation among twins is due different response to subclinical infection.

KEYWORDS: congenital dengue, escape one twin.

INTRODUCTION
Dengue is fast spreading global pandemic-.[1] This viral disease affects 6million individuals annually.Dengue is transmitted between people by the mosquitoe species like *Aedesaegypti* and *Aedesalbopictus*, which are found throughout the world.[2] The dengue virus is a single-stranded RNA virus in the genus Flavivirus and family Flaviviridae. This virus is approximately 40-60 nm.[3,4]. There are four different serotypes of dengue virus that can cause disease. A high fever, associated with hemoconcentration and thrombocytopenia, is the hallmark of severe dengue disease. It should be noted that there remain other non vector-borne modes of dengue transmission.

These uncommon modes of transmission are identified as vertical transmission from mother to fetus, transfusion-related transmission, transplantationrelated transmission, and needle-stick-related transmission.

Vertical transmission of dengue fever –from mother to fetus was first demonstrated in 1999 where it was shown that congenital dengue didn't cause any congenital malformations in the fetus but can cause significant perinatal mortality and morbidity.[5-6]

In 1965 butler et al reported that subclinical infection with seroconversion can occur without clinical defects in the child.[7]To show that this is indeed possible we report the outcome of a twin pregnancy in which a mother had dengue fever during her puerperal period. One infant is normal but the other severely affected with congenital dengue infection

CASE REPORT
Mother
A 21 year old pregnant lady with twin gestation was admitted to the hospital with 38 weeks of amenorrhea with chief complains of pain and bloody show. She had developed fever 1 day prior to her hospitalization. She had a significant uneventful normal delivery and delivered 2 diamniotic dichorionic neonates of weight 1.8kgs and 2.4kg, while the 1st twin was shiftedto NICU for low birth weight care,the second twin was kept at mother side. After delivery the mother continued to have fever and bleeding gums.Dengue fever was suspected due to rise in her hematocrit to 42 % and fall in her platelet counts. She developed shock on day 6 of fever which responded well to fluid resuscitation and received platelet transfusion. Her investigations revealed a positive IgM ELISA for dengue virus.

Neonates
The neonate transferred to NICU developed a petechial rash on day 3 of ICU admission on the legs and thighs clinically the liver was palpable about 2 cm and oral bleed blood investigations revealed thrombocytopenia with a platelet count falling up to 15,000 and a normal coagulation profile being normal. septic screen was negative for sepsis the baby received platelet transfusion and was treated symptomatically. Dengue IgM ELISA done on day 5 of life showed a positive IgM confirming secondary dengue infection.

The second neonate was asymptomatic and was thriving well, he didn't develop any fever or rash, his complete

blood count was within normal limits and his dengue screening was negative for dengue fever.

DISCUSSION

Case reports of vertical transmission of dengue fever are quite rare, Eight reports, with a total of 14 cases of perinatal transmission of symptomatic dengue, exist in the literature.[8] Asymptomatic dengue in neonates after detection in the mother during pregnancy is also possible.[9-10] According to reports published by Sibalic et al in 1986 and Couvreur et al in 1975 it was observed that there might be a variation among hetroszygous twins in response to congenital infections.[11] The absence of clinical manifestations and negative dengue serology suggest that although the second twin escaped clinical dengue infection he might have a subclinicalinfection not sufficient to mount a clinical response. This data suggests that there is an individual variation to congenital dengue infection among twins. It is also postulated that the escape of the other twin might be probably due to different amnion and chorionic layers and the virus might not have spread to the second twin The escape of one of the twin with maternal dengue is the first of its kind with no other cases published in literature.

CONCLUSION

In dengue endemic areas any pregnant mother presenting with fever and thrombocytopenia must be screened for dengue infection and the possibility of congenital dengue must be kept in mind and the neonates must be screened for congenital dengue.

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