BREIF REPORT

Chikungunya encephalitis in neonate has associated with very high mortality and Morbidity.

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This prospective study shows that perinataly transmitted viral chikungunya in neonates with encephalitis had high mortality and
morbidity.

15 neonates out of 100 neonates admitted from 1\textsuperscript{st} October to 31\textsuperscript{st} December had chikungunya encephalitis. Diagnosis was based on h/o of chikungunya to mother before 2-3 day of delivery, clinical feature like fever, excessive crying, dermatological and neurological manifestation. Sign and symptoms mimic to septicemia. Treatment is symptomatic no specific drug available.

Key word: chikungunya encephalitis

CHIK virus is member of genus Alpha virus in the family of Togaviridae, transmitted to human by vector like Aedes aegypti, and Aedes albopictus. The word chikungunya has bee derived from a Makonde word meaning “that which bends up”. Repeated outbreak has been observed in west, central and
southern Africa and many areas of Asia. During present outbreak in India 11 lac case of chikungunya reported.

The time of greatest risk of transmission of CHIK virus from mother to fetus, appear during birth, if mother acquired the diseases days before delivery. Viral chikungunya perinatally transmitted lead to encephalitis in newborn. Infection during pregnancy may lead to abortion, preterm labor. Neonates present at 3-5 day of life with fever, excessive crying, dermatological manifestation like maculo-papular rash, nasal blotchy erythema, freckle like pigmentation over Centro facial area, even vesiculobullous lesion,
apnea, shock, DIC, and neurological manifestation like seizures, disturb level of sensorium etc. Diagnosis is made by CHIK IgM and PCR.

Subject and methods

The prospective study was carried out in Kushal territory neonatal care, Bhavnagar from 1st October 2006 to 31 December, 2006. 15 neonates out of 100 admitted had chikungunya Encephalitis. Diagnosis was based on history of chikungunya to mother before 2-4 day of delivery, clinical Examination, biochemical investigation. Treatment was symptomatic no specific treatment Available.
Result:
 Fifteen neonates out of 100 neonates admitted had chikungunya encephalitis. Mean age of presentation 4th day of life. Average duration of stay in NICU 15 day. In first few babies detail investigation like HSV2 PCR, CT scan of brain, ABG, metabolic screening of urine, fundus, EEG, sugar, calcium, magnesium, plasma ammonia were normal. CHIK IGm of mothers were negative, IGm can’t cross placenta so CHIK IGm did not help in diagnosis. Chikungunya PCR was not possible in small centre.

| H/O of chikungunya to mother | 15  
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<tbody>
<tr>
<td>Male</td>
<td>14(93%)</td>
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<tr>
<td>Skin manifestation</td>
<td>15(100%)</td>
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<tr>
<td>Fever, excessive crying.</td>
<td>15(100%)</td>
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<tr>
<td>Seizure</td>
<td>14 (93%)</td>
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<tr>
<td>Apnea</td>
<td>13 (86%)</td>
</tr>
<tr>
<td>Shock</td>
<td>10 (66%)</td>
</tr>
<tr>
<td>DIC</td>
<td>4 (26%)</td>
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<tr>
<td><strong>Encephalitis</strong></td>
<td><strong>15(100%)</strong></td>
</tr>
<tr>
<td>Low platelets</td>
<td>7(46%)</td>
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<tr>
<td>Band cell/neutrophil &gt;0.2</td>
<td>1(7%)</td>
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<tr>
<td>Elevated CRP &gt;6</td>
<td>2(13%)</td>
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<tr>
<td>CSF normal</td>
<td>15(100%)</td>
</tr>
<tr>
<td>Blood bactec NG</td>
<td>5</td>
</tr>
<tr>
<td>Ventilatory support</td>
<td>4(26%)</td>
</tr>
<tr>
<td>Mortality</td>
<td>4 (26%)</td>
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</tbody>
</table>
Four babes (26%) were expired due to multi organ failure and DIC or encephalopathy.

DISCUSSION

This type of case report or study conducted first time in India its show that viral chikungunya can be transmitted from mother to babies. Here all babies had encephalitis. Clinical presentation similar to septicemia or pyogenic meningitis, or metabolic encephalopathy. So high index of suspicion, history of chikungunya to mother help in diagnosis. Treatment is symptomatic. Presently no preventive medication or vaccines are available for chikungunya. Vectors controls by use of various measures prevent chikungunya to pregnant mother and decrease neonatal mortality.
Key message
Transmission of viral chikungunya from mother to fetus may lead encephalitis in neonates.

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Competing interests: None stated.

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