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Congenital Syphilis as Neonatal Cholestasis Syndrome - An Extinct Entity?

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Sirs,

A male baby, born to a young primigravida at 32 weeks gestation, was admitted to neonatal unit in view of preterm labour through meconium stained liquor and low birth weight (1.8 kg). Antenatal period was uneventful with no history suggestive of infections and 1st trimester screen revealed negative serum Venereal Disease Research Laboratory (VDRL) and Retroviral serology.

At admission, his general condition was sick with evidence of respiratory distress (Downe's Score - 5/10), left eye purulent discharge, petechial rashes on trunk and meconium staining of cord & skin. Systemic examination revealed bilateral diminished chest air entry, distended abdomen with firm liver 3 cm below costal margins (bcm) and spleen 3 cm bcm.

Child was initially kept on supportive therapy including antibiotics and he was investigated further (Table 1). Yellow discolouration of eyes with dark urine was noticed on day 2 with pigmented stools. In view of clinical sepsis and

hepatosplenomegaly, possibility of congenital infection was considered. On repeat questioning, mother revealed tendency of high risk behavior on part of the father. Fundus Examination showed bilateral flame shaped hemorrhages and TORCH (ELISA IgM) profile of both baby and mother was negative. USG Abdomen showed mild hepatosplenomegaly and normal sized gall bladder. Rest of neonatal cholestasis screen was non-contributory. His etiological work up later revealed reactive serum VDRL (1:128 titre) suggesting syphilitic infection. Later serum Treponema Pallidum Haem-Agglutination (TPHA) test confirmed the diagnosis (Reactive +++++, 1:8 titre). Cerebrospinal fluid examination showed reactive TPHA (+++, 1:40 titre) but a non-reactive VDRL test. Family screening subsequently showed reactive maternal serum VDRL (1:64 titres) and serum TPHA (++++, 1:8) tests with similar results in father (reactive Serum VDRL 1:128 titres and Serum TPHA 1:8 titres).

Table I. Table showing trends of Laboratory parameters during hospital stay

Laboratory Parameters	Day 1	Day 2	Day 7
Hemoglobin (g %)	16.3	13.3	-
TLC (x 10 ⁹ /L)	52.6	32.6	-
DLC	N45L55	N54L40M4E2	-
Platelet Count (x 10 ⁹ /L)	29	91	-
Peripheral Smear	Toxic granules +	-	-
Serum Bilirubin mg % (T/D/I)	-	21/12.9/8.1	14.1/8.0/6.1
AST/ALT (IU/L)	-	1185/538	701/596
SAP/GGTP (IU/L)	-	241/-	580/70
Protein/Albumin (g %)	-	6.6/3.6	7.0/3.8
Blood Culture	-	No Growth	-
CSF Analysis	-	No Cells, Culture No Growth	-

ALT- Alanine Aminotransferase, AST- Aspartate Aminotransferase, CSF-Cerebrospinal Fluid, DLC- Differential Leucocyte Count, E- Eosinophils, GGTP- Gamma Glutamyl Transpeptidase, g % - Grams per Decilitre, IU/L International Units per Litre, L- Lymphocytes , mg %- Milligram per deciliter ,M- Monocytes , N- Neutrophils, SAP- Serum Alkaline Phosphatase , TLC – Total Leucocyte Count, T/D/I Total/Direct/Indirect.

As per protocol, he was started on crystalline penicillin, after which child showed response with improving general condition, regressing liver/spleen sizes, and improving liver function tests. He was treated for 10 days and was later discharged on parental request after which he was lost to follow up.

Now restricted to isolated case reports, this case highlights the importance of still considering syphilis as one of the important differential diagnosis in neonatal cholestasis given the ease of treatment in such cases [1-4]. Negative maternal results for serum VDRL in early pregnancy may be misleading. As in our case, mother must have been infected later during gestation underlining the importance of repeating maternal screen (VDRL and Retroviral serology) in immediate perinatal period [1].

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