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Case Report
An Infant with Congenital Rubella Syndrome in India

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Abstract:- Congenital rubella infection remains a public health problem when it is observed that around 40%-45% of women in the childbearing age are susceptible to Rubella. Over 2 lakhs babies are born with birth defects because of Rubella infection during pregnancy in India. Here presenting a case of a term female baby who tested positive for rubella virus. On examination the baby showed hepatosplenomegaly. She was detected to have patent foramen oval(PFO). On ophthalmic examination red reflex was present in both eyes. Baby came symptomatically Covid-19 positive at the time of admission. She was diagnosed with subglottic stenosis. Baby was treated with antibiotics and steroids. With this case the focus will be on clinical manifestation, treatment and also prevention of Congenital Rubella Infection in India.

I. INTRODUCTION

A 39 week term female child who was born to a 23 years old primi mother delivered by normal vaginal delivery . The conception was a spontaneous one. The mother had done the antenatal visits and had received immunization for tetanus and was on iron, folic acid prophylaxis during pregnancy. Mother had febrile rash during pregnancy. No TORCH (Toxoplasmosis, Rubella, Cytomegalovirus, Herpes Simpex) profile was sent during her pregnancy.Anomaly scan was also not done for the mother. No history of hypertension and diabetes were there during antenatal period.

The birth weight of the baby was 3000 gm, length was 49cm and the head circumference was 34 cm . On examination the child had hepatosplenomegaly . no rash was found on physical examination. On auscultation crepitation was found , no murmur and abnormal sound was found. Blood investigations revealed thrombocytopenia(40,000 per). Ophthalmic examination revealed no cataract found , red reflex found on both eyes. Chest x ray showed left lung upper lobe collapse. Covid screening was done and RTPCR came as positive for covid.

Vitals at the times of admission were temperature-36.4 degree Celsius, sp02-82%in room air, blood sugar value was 90mg/dl.

Baby was not having any symptom till 14 days of life. Baby got admitted with the complain of fever from last 7 days associated with rapid breathing and chest retraction. Upon examination to NICU , baby had grunting with Downe score of 6/10 with expiratory wheeze. Baby was started on nasal prong oxygen at 3 litres/min and 3%NS and adrenaline nebulization was started. Sepsis screening (TORCH) was don which came as positive.

The baby was initially started with IV antibiotics (Piperacillin-Tazobactam and Amikacin). Baby was managed in Covid ward and was continued on high flow oxygen and nebulization. On day 4 of hospital stay baby had increase respiratory distress with hypoxia , blood gas showed mixed acidosis.Baby was intubated and kept on assist control mode of ventilator with fio2 of 80%. Gradually the setting decreased and the baby was extubated on day 8 of hospital stay and continued on CPAP . Physiotherapy and adrenaline nebulization were continued. Baby had worsening distress with inspiratory stridor on day 12 of hospital stay. Baby had inspiratory stridor on crying , reason thought was subglottic stenosis secondary to intubation.

Baby had thrombocytopenia on admission . platelet count improved by day 10 of hospital stay . Rubella IgM came out positive but baby did not have any other features of infection. Orogastric feeding was increased to maximum of 160 ml/kg/day . Baby was made off CPAP on day 40 and restarted on breast feeding . Now the baby is taking katori-spoon feeding and mother is comfortable taking care of the baby. At time of discharge baby was comfortable on room air and her stridor has decreased.

II. DISCUSSION

Congenital rubella syndrome is a rare disorder with devastating ocular and systematic consequences. Although rubella virus infection usually causes a mild fever and rash illness in children and adults, infections during pregnancy especially during first trimester , can result in miscarriage, fetal death, still birth or infants with a congenital malformations known as congenital rubella syndrome (CRS)[1].

Manifestations of CRS include cataract, congenital glaucoma, congenital heart disease, microcephaly, deafness and mental retardation. Thrombocytopenia, hepatosplenomegaly may also present in these infants[2].

S Chandy et al described the proportion of suspected CRS cases that were laboratory confirmed increased from 4 % in 2000 to 11% in 2008. During the same period , 329 clinically suspected postnatal rubella cases were tested out of which 65 (20%)were laboratory confirmed. Of childbearing age, 12.5 % were susceptible to rubella[3].

P Vijaylakshmi et al described children under 5 years of age with ocular complaints were screened for eye signs suspicious of CRS, CRS compatible signs were detected in 1.92% children. Of these suspects, 27.42% were subsequently confirmed clinically according to WHO definition and 4.2% were serologically confirmed[4].

Toizumi et al described 38 CRS infants, among whom PDA(72%) and thrombocytopenia were the most common manifestations. Pulmonary hypertension associated mortality in cases of PDA was about about 37%. Cataract was found in only 13% of CRS infants in study[5].

This study is all about a infant manifested with hepatosplenomegaly and igm positive result for rubella virus, this infant is diagnosed with Congenital Rubella Infection. This child was RTPCR positive for Covid .

III. CONCLUSION

Active childhood immunization is not only step to prevent or eliminate congenital rubella infection , but identification and vaccination of suspected childbearing women is necessary. Women in reproductive age who have no evidence of previous rubella infection should be screened for rubella infection. India has achieved only 40-60% vaccination status in pregnant women and children against rubella infection.

RECOMMENDATION

Screening of all pregnant women and infants are necessary to prevent further infection.

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