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Neonatal Peripheral Gangrene: An Unusual Presentation of Early Onset Neonatal Sepsis (Eons)

KEYWORDS: Neonatal, Gangrene

Dr Mohit Bhambri	Dr Pankaj Bansal	Dr Gurmeet Kaur
MD Paediatrics, Assistant Professor, Department of Paediatrics, GGS Medical College & Hospital, Faridkot	DCH Paediatrics, Senior Resident, Department of Paediatrics, GGS Medical College & Hospital, Faridkot	MD Paediatrics, Professor & Head, Department of Paediatrics, GGS Medical College & Hospital, Faridkot

ABSTRACT *Peripheral gangrene per se is very rare in newborn peroid. Exact cause is not known. Various causes have been implicated as cause for neonatal gangrene viz polycythemia, coagulopathies including protein C deficiency, dehydration, birth asphyxia, congenital heart disease, umbilical artery catheterisation, maternal diabetes, direct pressure from maternal pelvis, Rh incompatibility and neonatal sepsis. We hereby report a newborn presenting with peripheral gangrene at birth due to EONS.*

Peripheral gangrene in newborn period per se is very rare occurrence. Only a few cases have been reported in literature. We hereby report such a rare case.

A male baby was born to a young primigravida mother at 31 weeks of gestation by preterm vaginal delivery at tertiary care hospital with apgar scores of 7 & 8 at 1 and 5 minutes repectively. The mother had eclampsia for which she was managed appropriately. There was no history of leaking per vaginum(LPV)/ bleeding per vaginum(BPV) and no history suggestive of chorioamnitis in mother. Baby was small for date with birth weight of 1 Kg and had respiratory distress onset at birth. So he was shifted to NICU for further management. On examination he had presence of peripheral gangrene of palmar surfaces of three fingers of left hand since day 1 of life. No canulation/sampling had been done on that limb.

Fig. 1 Middle, ring and little fingers of left hand of newborn showing gangrenous changes

His investigations on day 1 of life revealed Hb 19.4g/dL, TLC 4,350/cmm (corrected 1,450/cmm), ANC 174/cmm, platelet count 64,000/cmm, 200 nucleated RBCs/100WBCs. Coagulation profile was suggestive of disseminated intravascular coagulation(DIC) with PTI 50% and APTT 49%. Blood C/S grew Klebsiella pneumoniae after 48 hours of incubation resistant to all tested antibiotics.

Diagnosis of early onset neonatal sepsis (EONS) with DIC was established. Baby was put on nasal prong CPAP, started on intravenous antibiotics and fresh frozen plasma was transfused. He had worsening respiratory distress requiring hiking respiratory support and was ventilated on day 2 and also required inotropic support for shock, but unfortunately we could not save him and he succumbed to illness on day 3of life.

Various causes have been implicated as cause for neonatal gangrene viz polycythemia (Okeniyi JAO et al, 2006), coagulopathies including protein C deficiency (Sen K & Roy A, 2006) , dehydration, birth asphyxia, congenital heart disease, umbilical artery catheterisation, maternal diabetes, direct pressure from maternal pelvis, Rh incompatibility and neonatal sepsis. Rest of causes were ruled out by history/investigations.

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