

NEONATAL SEPSIS

Objectives

At the end of the lesson, the students will:-

- Define sepsis in a newborn
- Describe preventive measures of sepsis
- Diagnose sepsis in the newborn
- Manage sepsis in the newborn
- Organise appropriate referral procedure

NEONATAL SEPSIS

A serious infection of the newborn's entire body

Risk factors

- Maternal infection
- Prolonged rupture of membranes.(>24hrs)
- prematurity/ low birth weight
- Prolonged labour
- Foul smelling amniotic fluid
- Risk of contracting intrapartum and postpartum infection is inversely proportional to gestational age.

Rationale

- Single major cause of death in neonatal period (1/3 of all the deaths)
- It may begin as an URTI, omphalitis, dermatitis or without any apparent source of infection
- Group B Haemolytic streptococcus and staphylococcus aureus and E. Coli are most likely causes of neonatal sepsis.
- Common viral agents include herpes simplex, HIV, CMV, and hepatitis B.
- The main source of infection are the mother and environment-staff, delivery area nursery and home

- Neonates are immunologically immature, with decreased polymorph nuclear leukocyte and monocyte function;
- premature infants are particularly so. Maternal IgG antibodies are actively transported across the placenta, but effective levels for all organisms are not achieved until near term. IgM antibodies do not cross the placenta. Premature infants have decreased intrinsic antibody production and reduced complement activity.
- Premature infants are also more likely to require invasive procedures (e.g., endotracheal intubation, prolonged IV access) that predispose to infection

DIAGNOSIS

- A wide variety of infections should be considered in neonates who are ill, febrile, or hypothermic. Infections such as congenital rubella, syphilis, toxoplasmosis, and CMV should be considered, particularly in neonates with abnormalities such as growth restriction, deafness, microcephaly, anomalies, failure to thrive, hepatosplenomegaly, or neurologic abnormalities.

- History taking
 - when and where the baby was born, health status of the mother during labour
 - Breastfeeding or not, crying a loud or weak and the general state of the baby
- Physical examination-observe the baby and note feeding habit, respiration, temperature, Cry, colour, activity, jaundice and any signs of eye infection

MANAGEMENT

- The primary treatment is usually antimicrobial therapy
- Explain every thing to the mother and family including the urgency of the situation .
- Breastfeed as much as possible – top up with EBM via NGT
- Keep baby warm- hat, socks and gloves or kangaroo method
- Keep nostrils clear and observe breathing
- Orientate mother on care of the sick baby

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- I.m /iv gentamycin 2.5mgs /kg
- i.m/iv crystapen penicillin 100,000iu twice a day for ten days.

TAKE HOME MESSAGE

- ✓ NEVER assume that fever in a newborn is unimportant or that a baby who doesn't breastfeed or appear discontent or restless will get better.
- ✓ REMEMBER that sepsis is the major cause of death in neonates. Without adequate treatment they can die in 24-48 hours
- ✓ Don't treat a neonate with fever as if he had URTI
- ✓ DO NOT WAIT if you encounter any suspicious sign, its better to treat like sepsis