THE OLD MAN OF THE SEA: A CASE OF NEONATAL PROTEUS MENINGITIS AND REVIEW OF THE LITERATURE

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Background and aim: Proteus mirabilis is a gram-negative rod-shaped bacterium, first discovered by Hauser, a German pathologist. He named it after a character in the Odyssey by Homer, “the old man of the sea”, highlighting the gift of Proteus for endless transformation. Proteus mirabilis is an important and often forgotten causative agent of neonatal meningitis, with potentially devastating consequences. We highlight the importance of clinical suspicion of Proteus meningitis in neonates with umbilical infection and suspected sepsis.

Methods: Following the review of records and bacteriological confirmation of our index case, a literature review was performed of peer reviewed journals.

Results: We report a full term male neonate with CSF confirmed Proteus meningitis secondary to omphalitis and no perinatal risk factors. Proteus mirabilis has a particular association with cerebral abscesses, often with poor neuro-developmental outcomes and mortality. No evidence of brain abscess was noted on MRI and follow up neuro-developmental assessment at six months of age was normal in our case. Incidence of Proteus meningitis in neonates varies, with the highest rates seen in Eastern Europe. Our literature review revealed 26 reported cases from 4 countries over a 23 year period.

Conclusions: Neonatal meningitis secondary to Proteus mirabilis is often associated with poor outcomes. Perhaps the early bacteriological confirmation, use of sensitive antibiotics with good CSF penetration and institution of the principles of 'save sepsis campaign' resulted in a satisfactory outcome for our patient. Recent studies also report some success of prevention of omphalitis with umbilical chlorhexidine application.