

Letter to Editor

Sphingomonas paucimobilis: An unusual cause of meningitis in a preterm neonate

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To the Editor,

Meningitis in neonates is a devastating condition carrying high mortality and risk of neuro-morbidity [1]. Common causes of neonatal meningitis in the Indian setup include *Acinetobacter*, *Klebsiella*, and *Pseudomonas* [2]. So far, only a single case of neonatal meningitis by *S. paucimobilis* has been reported in the literature [3].

A male neonate, born preterm (32 + 6 weeks), small for gestational age, weighing 987 g, with an uneventful delivery, was admitted with respiratory distress after birth. He was stable on continuous positive airway pressure and tolerating incremental enteral feeds. However, on day-5, he developed abdominal distension with bilious aspirates. Sepsis screen was negative (Table 1)

Sl. No.	Markers	Value
1	Total Leukocyte Count	6,490/mm ³
2	Absolute Neutrophil Count	3472/mm ³
3	C-Reactive Protein	29.4 mg/L
4	Micro-ESR	1 mm
5	Immature-to-Total Neutrophil Ratio	0.12
6	Platelet Count	27,000/mm ³
7	CSF protein	113 mg/dL
8	CSF glucose	75 mg/dL

Gram stain of the cerebrospinal fluid (CSF) revealed Gram-negative bacilli, with no cells. Considering the possibility of late-onset sepsis with meningitis, empirical antibiotics were started. Blood culture, including fungal, was sterile, but CSF grew *Sphingomonas paucimobilis*, which is sensitive to most common antibiotics. The neonate responded to therapy; activity improved, and enteral feeds were tolerated. The serial bedside cranial ultrasound remained normal. *S. paucimobilis*, is an aerobic Gram-negative, oxidase-positive, and glucose-non-fermenting bacillus. It is a low-

virulence, ubiquitous pathogen implicated in nosocomial as well as community-acquired infections in both immunocompromised and immunocompetent individuals [4,5]. It has been isolated from contaminated hospital environments such as indwelling catheters, ventilators, nebulizers, and intravenous fluids [5]. We speculated that the organism was transmitted through the humidification chamber of the ventilator; however, culture of the humidifier water was sterile.

This report highlights the importance of Gram-staining of CSF for the rapid diagnosis of meningitis in low-resource settings, and the role of early initiation of therapy in indolent meningitis, even with low-virulence organisms.

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