

Chennai known as Madras is the capital city of the Indian state of [Tamil Nadu](#). Located on the Coromandel Coast off the Bay of Bengal, it is the biggest cultural, economic and educational centre in South India.

Case series

A retrospective analysis was conducted of the medical records of all 363 neurosurgical cases performed between June 1, 2012, and June 30, 2013, at the Post Graduate Institute of Neurological Surgery, Dr. A. Lakshminpathi Neurosurgical Centre, Voluntary Health Services Hospital, Chennai, Tamil Nadu, India.

Data from all operative neurosurgical cases during the 13-month period were included.

Cerebrospinal fluid (CSF) analysis indicated that 71 of the 363 surgical cases had low CSF glucose or CSF leukocytosis. These 71 cases were categorized as PCNSIs. The PCNSIs with positive CSF cultures (9.86%) all had gram-negative bacteria with *Pseudomonas aeruginosa* (n = 5), *Escherichia coli* (n = 1), or *Klebsiella pneumoniae* (n = 1). The data suggest a higher rate of death ($P = 0.031$), a higher rate of CSF leak ($P < 0.001$), and a higher rate of cranial procedures ($P < 0.001$) among the infected patients and a higher rate of CSF leak among the patients with culture-positive infections ($P = 0.038$).

This study summarizes the prevalence, causative organism of PCNSI, and antibiotic usage for all of the neurosurgical cases over a 13-month period in a modernized yet resource-limited neurosurgical center located in South Asia. The results from this study highlight the PCNSI landscape in an area of the world that is often underreported in the neurosurgical literature because of the paucity of clinical neurosurgical research undertaken there. This study shows an increasing prevalence of gram-negative organisms in CSF cultures from PCNSIs, which supports a trend in the recent literature of increasing gram-negative bacillary meningitis ¹⁾.

¹⁾

Chidambaram S, Nair MN, Krishnan SS, Cai L, Gu W, Vasudevan MC. Postoperative Central Nervous System Infection After Neurosurgery in a Modernized, Resource-Limited Tertiary Neurosurgical Center in South Asia. *World Neurosurg*. 2015 Dec;84(6):1668-73. doi: 10.1016/j.wneu.2015.07.006. Epub 2015 Jul 11. PubMed PMID: 26171888.

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