Pyogenic ventriculitis

Pyogenic ventriculitis (PV) is a rare, severe, and debilitating intracranial infection due to inflammation of the ventricular ependymal lining and is associated with pus in the ventricular system ¹)

This infection can lead to hydrocephalus and death if not promptly recognized and treated. PV is synonymous with pyogenic intraventricular empyema (PIE), pyogenic ependymitis, and pyocephalus.

Most cases are caused by intraventricular rupture of cerebral abscess and direct implantation of pathogens following head injury and neurosurgical procedures, e.g., ventricular drain insertion ²).

The commonest organisms causing pyogenic ventriculitis are Staphylococcus aureus, other Gram-positive cocci, Enterobacter and Klebsiella species, in association with nosocomial infection or immunosuppression ³) ⁴).

In the series of Wang et al., the most frequently isolated pathogen from cerebrospinal fluid (CSF) was Acinetobacter baumannii, followed by Pseudomonas aeruginosa, Escherichia coli, Klebsiella pneumoniae, and Serratia marcescens ⁵).

Acinetobacter baumannii is an important cause of nosocomial ventriculitis associated with external ventricular drainage (EVD) and have substantially increased over recent years ⁶).

see Acinetobacter baumannii ventriculitis.


