

Nocardia ventriculitis

A 47-year-old woman underwent an [endoscopic third ventriculostomy](#) and a left [retrosigmoid craniotomy](#) for a [schwannoma](#) removal. [Meningeal](#) symptoms began a week later, in association with [C reactive protein](#) rise and [leukocytosis](#). The [cerebrospinal fluid analysis examination](#) was clear with [hypoglycorrhachia](#), hyperprotidorrachia, and [polymorphonuclear](#) cells. The [bacteria culture test](#) was negative. At the brain magnetic resonance imaging (MRI) [purulent](#) material was described in the [occipital horns](#). Empirical [broad-spectrum antibiotics](#) was given for 31 days until the brain MRI showed a resolution of the infection. Ten days later, the patient was admitted to the hospital because of new [meningitis](#) symptoms. Cerebrospinal fluid culture and Polymerase-chain reaction (PCR) Multiplex for the most important meningitis viruses and bacteria tested negative. A broad-spectrum antibiotic therapy was started with no benefit; thus, a broad-spectrum antifungal therapy was added with little success on clinical status. Meanwhile, a 16s and 18s rRNA PCR was executed on a previous Cerebrospinal fluid with negative results, excluding bacterial and fungal infections. For this reason, all the therapies were stopped. After a few days, high fever and meningeal signs reappeared. The brain MRI showed a meningoventriculitis. An [Ommaya](#) catheter with a reservoir was inserted and the drawn CSF resulted in the growth of [Nocardia farcinica](#). Antibigram-based antibiotic therapy was started with intravenous [imipenem](#) and [trimethoprim-sulfamethoxazole](#), showing clinical benefit. The patient was sent home with oral [linezolid](#) and [amoxicillin/clavulanate](#) for a total of 12 months of therapy. *Nocardia* rarely causes post-neurosurgical complications in a [nosocomial](#) setting. This case shows the difficulty in detecting [Nocardia](#) and the importance of the correct microbiological sample and [antibiogram](#)-based antibiotic therapy to achieve successful treatment ¹⁾.

¹⁾

Ponta G, Bradanini L, Morena V, Mauri C, Ripa M, Uberti Foppa C, Castagna A, Luzzaro F, Piconi S. Post-neurosurgical *Nocardia* meningoventriculitis: a case report and review of the literature. *New Microbiol.* 2023 Feb;46(1):75-80. PMID: 36853823.

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