

## Commentary

Chronic suppurative otitis media (CSOM) is an active infection of the middle ear with a perforated eardrum and otorrhea, lasting for at least several weeks. CSOM is most commonly caused by *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Proteus* species and *Klebsiella pneumoniae*. Although patients with CSOM usually respond well to antibiotic treatment, CSOM without proper treatment may cause several serious complications, including brain abscess.<sup>[1]</sup> This direct intracranial extension of contiguous suppurative structures, such as otitis media, dental infection and sinusitis, may account for 40–50% brain abscess cases.<sup>[2]</sup> The clinical presentation of brain abscess may be indolent, asymptomatic or with meningeal signs. A computerized tomography scan should be performed if such complications are being considered. Surgical excision or drainage remains the standard treatment for brain abscess. The initial empiric therapy can be adjusted according to culture results to treat the isolated bacteria and prolonged treatment, usually of 4–8 weeks, is often needed in most cases.

Patil *et al.* reported in this journal an interesting case of brain abscess caused by *Morganella morganii* following CSOM in a 12-year-old boy.<sup>[3]</sup> *M. morganii* is a gram-negative facultative anaerobe that is commonly found in the environment and in the human intestinal tracts as normal flora. *M. morganii* has been associated with

urinary tract infections, pneumonia, wound infections, central nervous system infections, chorioamnionitis and neonatal sepsis. Despite its wide distribution, it is most often isolated as a nosocomial infection in adults and, rarely, in children. This organism is characteristically resistant to many beta-lactam antibiotics, which may lead to a delay in proper treatment. However, the antibiotic treatment and duration for treating *M. morganii* infection have not been well documented. Treatment is mainly based on antibiotic sensitivity results from sterile cultures. A third generation of cephalosporin alone or with an aminoglycoside is effective in treating patients without complications. Duration of therapy should be appropriate for the clinical improvement. *M. morganii* sepsis has been associated with a significant mortality rate of 22% in adults and 36% in the newborn.<sup>[4,5]</sup> It is important for clinicians to be aware that appropriate treatments should be undertaken immediately with *M. morganii* infection.

In conclusion, although it is uncommon, *M. morganii* should be considered if CSOM is unresponsive to medical treatment and prompt institution of appropriate antibiotic therapy is essential. Clinicians should also be aware that brain abscess is one of the more serious, life-threatening complications of CSOM. Proper image study, neurosurgical evacuation and prolonged antibiotics are the key to successful treatment for brain abscess.

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## References

1. Hannley MT, Dennenny JC 3rd, Holzer SS. Use of ototopical antibiotics in treating 3 common ear diseases. *Otol Head Neck Surg* 2000;122:934-40.
2. Mathisen GE, Johnson JP. Brain abscess. *Clin Infect Dis* 1997;25:763-79.
3. Patil AB, Nadagir SD, Lakshminarayana SA, Fasiha SM. *Morganella*

*morganii*, subspecies *morganii*, biogroup A: An unusual causative pathogen of brain abscess. *J Neurosci Rural Pract* 2012;3:370-2.

4. Mylotte JM, McDermott C. *Morganella morganii*: Epidemiology of bacteremic disease. *Infect Control* 1984;5:131-7.
5. Chang HY, Wang SM, Chiu NC, Chung HY, Wang HK. Neonatal *Morganella morganii* Sepsis: A case report and review of the literature. *Pediatr Int* 2011;53:121-3.

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