

Figure 2: (A) Saggital T2 sequence showing resolution of epidural hematoma. (B) Axial T1 (Fat sat) sequence showing resolution of hematoma

compressing the spinal cord.<sup>[4]</sup> Methylprednisolone has been used occasionally with good results and its beneficial effects evolve around the membrane-stabilizing effect and the ability to suppress lipid perioxidation and hydrolysis and inflammatory chain reaction at the injury site.<sup>[5]</sup>

### R. Neetu, M. S. Chandra\*, M. Rashmi\*

Departments of Neurology and \*Medicine, Rungta Hospital, D-694, Malviya Nagar, Jaipur - 302 017, India. E-mail: neetudilip@yahoo.co.in

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# *Enterococcus avium* cerebellar abscess

Sir,

A right-handed 5-year-old boy was admitted to the hospital with a 10-day history of severe headache (aggravated by coughing and sneezing), vomiting and high-grade fever. His past history was unremarkable except for left-sided oitits media of three years duration. On examination, the patient had a blood pressure of 100/70 mm Hg, a pulse rate of 84/minute and a temperature of Laboratory examination revealed a hemoglobin level of 144g/L, a total leucocyte count of  $8.6 \ge 10^{9}$ /L (76% polymorphs, 22% lymphocytes, 2% eosinophils) and platelet count of  $391 \ge 10^{9}$ /L. Routine blood chemistry and coagulation tests were normal. The patient underwent a contrast enhanced computed tomography scan of the brain which showed a cerebellar abscess on the left side. Left paramedian suboccipital craniectomy was performed with excision of left cerebellar abscess. Pus aspirate was sent for bacterial culture. Thereafter, cavity was irrigated, wound drainage done and the patient placed on parenteral antibiotics (cefoperazone/sulbactam and metronidazole).

Culture of the pus aspirate revealed pure growth of *Enterococcus* avium identified by conventional biochemical tests.<sup>[1]</sup> The organism (gram positive cocci) was catalase negative, hydrolysed bile-esculin and grew in 6.5% sodium chloride. In carbohydrate utilization tests performed in purple broth<sup>[1]</sup> (brain heart infusion broth with bromocresol purple as indicator), the organism fermented arabinose, lactose, mannitol, sorbitol and sucrose but not raffinose. It did not hydrolyse arginine and did not reduce potassium tellurite. Identification of the isolate was confirmed as *Enterococcus* avium by the API 20 Strep system (Bio-Mérieux, Marcy l'Etoile, France).

In a standard Kirby-Bauer sensitivity test, the organism was susceptible to penicillin, erythromycin, gentamicin, ciprofloxacin, teicoplanin, vancomycin and linezolid. Antibiotic therapy consisting of cefoperazone/sulbactam (2 gm i.v. 8 hrly) and metronidazole (100ml i.v. 8 hrly) was continued for 2 weeks and the patient improved. He was discharged on the 14<sup>th</sup> postoperative day in a stable condition with a healthy wound and was advised to come for follow-up in the otorhinolaryngology clinic.

Brain abscesses are intracerebral infections arising from microbial introduction, leading to cerebritis followed by an encapsulated focal collection of pus. The usual routes of infection include contagious spread from sinus, dental, and otogenic infections.<sup>[2]</sup> Brain abscess due to an otogenic source is rare (1 in 10,000) in the post-antibiotic era, largely due to prompt therapy of otitis media.<sup>[2]</sup> Untreated or chronic otogenic infections, however, may lead to intracranial complications such as brain abscess.<sup>[3]</sup> Enterococcus avium (formerly known as group Q Streptococcus), the etiologic agent of brain abscess in our patient, is a rare pathogen in humans.<sup>[1]</sup> Other cases of *Enterococcus avium* induced abscesses in human beings include those of pancreas,<sup>[4]</sup> gall bladder<sup>[5]</sup> and spleen.<sup>[6]</sup> Prior to this case, we have recently reported another case of brain abscess due to *E.avium*.<sup>[7]</sup> The patient was an immunocompetent adult with a history of chronic otitis media and the abscess was located in the temporal lobe.<sup>[7]</sup> Apart from abscesses, other cases of *E.avium*-induced human infections include bacteremia, endocarditis, osteomvelitis, meningoencephalitis and infection of a breast prosthesis.<sup>[7]</sup>

Since strains of E.avium are usually susceptible to beta-lactams and aminoglycosides,<sup>[1,5,7]</sup> it cannot be excluded that at least some of the infections previously reported as caused by sensitive enterococci may in fact have been unrecognized infections by E.avium.

In summary, *E.avium* is an uncommon cause of brain abscess; however, its incidence may be rising, and it should be considered in the differential of causative organisms. This shall enable proper selection of antimicrobial agents, a key to the successful management of brain abscess.

## S. Mohanty, A. Kapil, B. K. Das, B. Dhawan

Department of Microbiology, All India Institute of Medical Sciences, New Delhi - 29, India, E-mail: b\_neha2002@yahoo.co.in

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