

Letter to the Editors

Management of lateral sinus thrombosis: update and literature review. *J Laryngol Otol* 2003;117:932–9

Dear Sirs,

We read with interest the above article by E.H. Ooi, M. Hilton and G. Hunter. The authors described four case reports of lateral sinus thrombosis (LST) as a complication of acute and chronic otitis media. They presented their own opinions and discussed the aetiopathogenesis, diagnosis and treatment of this complication. As these are different to our experience in managing of LST, we decided to present our opinion.

Their treatment methods of described complications are different to ours. In all cases the role of the otorhinolaryngologist in establishing the diagnosis is not exposed enough. Astonishing is the presence of pathogens in the blood in all patients despite prior applied antibiotics. The authors used modern diagnostic methods such as CT and MRI, but forgot about simple, cheap and still valuable tests such as temporal bone X-ray in Schuller projection, ESR, CRP, coagulation parameters and monitoring of heart rate and body temperature. We find doubtful the decision of gentamicin administration for the treatment of these otogenic complications with hearing loss.

To assess the thrombotic process in lateral sinus and jugular vein the authors applied CT scan and MRI. In none of the presented cases did they perform jugular vein ligation (JVL) despite the danger of occurrence of septic emboli. To control the results of such a treatment one should repeat MRI or Doppler ultrasonography. The authors did not show evidence for re-canalization of the sigmoid sinus after antibiotic therapy.

Agarwal *et al.* performed myringotomy and tube insertion, canal wall-up mastoidectomy, posterior fossa craniotomy with evacuation of the epidural abscess and the sigmoid sinus was identified, but not needle-aspirated nor opened.¹ They repeated ultrasonography and CT frequently to present evidence of sigmoid sinus re-canalization after intravenous antibiotics, without surgical drainage or venous anticoagulants.

According to the authors of the article, repeated lumbar punctures in cases of otitic hydrocephalus are useful only on a short-term basis. In our opinion frequent lumbar puncture in patients with otitic hydrocephalus is dangerous as it may cause cerebral herniation. It would be safer in these cases to administer anti-oedematous drugs or to decompress the orbital nerve and ventricular shunt.^{1–3}

The authors point out the value of MRI angiography in LTS diagnostics, but only repeating this examination during therapy may prove its real usefulness. The other helpful diagnostic tools are Doppler ultrasonography and PET or SPECT.^{1,3}

At the Department of Otolaryngology of the Medical University of Gdańsk, Poland, in the years 1991–2000 there were 466 patients surgically treated for chronic otitis media (totally 507 ears). In 85 of them (16.8 per cent) a complication was diagnosed; nine cases (1.7 per cent) were

extracranial and 14 (2.7 per cent)—intracranial. In four patients (0.8 per cent) LTS was observed. Our management of LST consisted of one stage surgical treatment: radical or modified mastoidectomy with thrombus removal and jugular vein ligation, with a very good final treatment result.²

The authors of the discussed article employed the two stage method of treatment in these cases, which consisted of cortical mastoidectomy in the first stage and removal of inflammatory tissue from the middle ear with the reconstruction of the sound transmission apparatus. Performing a combined approach tympanoplasty in a patient with cholesteatoma and intracranial complications is controversial. Thrombectomy in each case should depend on the presence of local complications, septicaemia, pulmonary complications or septic metastatic emboli.

In none of the described cases did the authors perform JVL, although in two patients pneumonia secondary to septic emboli was observed. In our Department JVL is performed in each case of sepsis or presence of septic emboli or symptoms of thrombophlebitis in the internal jugular vein. JVL usually gives no complications, shortens the treatment period and prevents pulmonary complications.² The authors treated one patient with anti-coagulant. In cases of LST with coagulation disorders, anticoagulants should be given very cautiously, with monitoring of coagulation parameters. The role of anticoagulants is controversial in treatment of non-septic LST. Antibiotic treatment should initially consist of intravenously given high doses of antibiotics, with good blood-brain barrier penetration.^{4,5}

References

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