Lateral sinus thrombosis in a patient with MTHFR mutation.

L. González Gala, C. Heredia Llinas, A. Pozo López, A. Lowy

Lateral Sinus Thrombosis (LST), as a rare complication of middle ear infection, is a life-threatening condition. An early diagnosis and treatment is essential therefore a high degree of suspicion of this complication is required.

As antibiotic resistance and generalized hypercoagulable states are associated with this complication, assessing both is mandatory. Hereditary prothrombotic disorders, including MTHFR mutation, are important risk factors.

The treatment of this condition must include parenteral antibiotics and surgical treatment. Besides that, anti-coagulant treatment is controversial.

Introduction
We present a pediatric case of lateral sinus thrombosis in which we describe the clinical approach and treatment.

Methods
A 3 years old patient was admitted to the ENT Department with the diagnosis of initial acute mastoiditis (Figure 1). Over the following days, in spite of intravenous antibiotics, pain and fever persisted and only then did the parents reveal an earlier diagnoses of a MTHFR gene mutation, so further studies were completed. Computed tomography (CT) scan with contrast revealed the lateral sinus thrombosis on the left side (Figure 2).

Results
With the diagnosis of LST, miringotomy and mastoidectomy were performed. The intra-operatory microbiological culture showed Fusobacterium necrophorum. The patient presented significant clinical improvement soon after surgery. A magnetic resonance imaging (MRI) one month later confirmed the diagnosis (Figure 3).

After hospital discharge with antibiotic for 6 weeks and anticoagulant therapy for 6 months (acenocoumarol), the patient remained in good general condition. Multidisciplinary follow-up by Pediatrics, Hematology and Otorhinolaryngology was arranged. Magnetic resonance angiography (MRA) and MRI were performed 6 months later revealing the persistence of a vascular defect on the lateral sinus and internal jugular vein, with no signs of further complications. (Figure 4).

Complex conditions in children stress the need for multidisciplinary team work in diagnosis, treatment and follow up.