COMPLICATIONS ASSOCIATED TO ACUTE MASTOIDITIS (AM) TREATED AT AN URBAN TERTIARY CARE CHILDREN’S UNIVERSITY HOSPITAL

Cardelús Vidal S¹, Gargallo E², Wienberg Ludwig P³, Díaz Anadón A², Vázquez Romero C³, Levorato M², Adroher Muñoz M¹, Lacima Vidal J¹, Claveria Puig M¹, Haag O¹
¹ Dept. of Pediatric Otolaryngology, ² Dept. of Pediatrics. ³ Sant Joan de Déu Children’s Hospital, Barcelona, Spain

Introduction

AM is the most common complication in children following acute otitis media. The goal of this study was to describe the incidence, management and complications of AM during a year, treated in an urban tertiary care University Hospital.

Material and Methods

We performed a systematic review of all the patients admitted in our hospital with the diagnosis of AM during the period between October 2016 to September 2017. We reviewed data on demographics, clinical presentation, medical history, radiological findings, microbiology, management and complications.

Results

27 patients were included in this study with mean age of 3.9 years (Fig.1).

We found that patients with intracranial complications had higher CRP levels than patients without complications (132 mg/L vs 60 mg/L, p<0.001), and a higher length of hospital stay (17 days vs 5 days, p<0.001) (Fig.2).

No other relationship between clinical data, and complications was found, including patient vaccination status.

14 patients (60%) presented with intracranial complications: subperiostal abscess was the most frequently found (52%), followed by transverse/sigmoid sinus thrombosis (22%) and jugular vein thrombosis (22%) and epidural abscess (11%) (Fig.3).

74% of the microbiological tests showed no bacterial growth, probably because all of these patients had been previously treated with antibiotics (Fig.4).

Computed tomography (CT) was performed in 60% of the patients who were not responding to medical treatment, and in all of them the presence of intracranial complications was confirmed.

16 patients (60%) resolved with medical treatment and 11 patients (40%) needed the addition of a surgical procedure (1 with mastoidectomy only and 10 with mastoidectomy and timpanostomy tube) (Fig.5).

Conclusions

AM is a prevalent complication after acute otitis media. Coexistence of intracranial complications should be suspected when there is a lack of response to medical treatment and in the presence of high levels of CRP. In this group of patients a CT and/or MRI should be performed to confirm the diagnosis.