



A CASE REPORT OF CSOM WITH CHOLESTEATOMA PRESENTING AS ACUTE BACTERIAL MENINGITIS

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ABSTRACT

Aim: To report a case of CSOM with cholesteatoma presenting as acute bacterial meningitis.

Cholesteatoma is a cyst like growth originating in the middle ear, lined by keratinized, stratified squamous epithelium and containing desquamated epithelium or keratin. Even though it is less common than simple chronic otitis media, cholesteatomatous otitis media is normally associated with complications because of its invasive potential.

Material and methods: A 12 year old male presented with vomiting, altered sensorium, severe earache and headache and high grade fever with history of chronic right sided ear discharge. He was started on I.v antibiotics and other symptomatic treatment was given. **Result:** The patient was treated for meningitis and responded with higher antibiotics. **Conclusion:** Treating otitis media with judicious rational antibiotics for optimum duration and follow up care for recurrent otitis media is utmost important to prevent complications of otitis media.

KEYWORDS : Cholesteotoma, modified radical mastoidectomy, meningitis

INTRODUCTION

There are three dissemination passage for the occurrence of otogenic meningitis which are hematogenous, congenital dehiscence or preformed. The prevalence of intracranial complications in middle ear infections is 0.4% to 6.4% of cases. Amongst which meningitis is the most common with a prevalence of 35%-46%. Acquired cholesteatoma develops most common as complication of long standing chronic otitis media.

Case Report

A 12 year old male presented with vomiting, altered sensorium, severe earache and headache and high grade fever since 1 week with history of chronic right sided ear discharge since 3 months. The patient's Glasgow Coma Scale (GCS) was 12/15, neck stiffness and positive Kernig's sign, horizontal nystagmus and exaggerated deep tendon reflexes. ENT evaluation revealed pus and polyp in right ear along with mastoid tenderness. CBC showed leukocytosis with neutrophilic predominance. Lumbar Puncture report showed predominantly polymorphs and lymphocytes, decreased glucose and slightly increased protein levels suggestive of meningitis. Raised intracranial pressure was managed with hypertonic saline. Patient was treated for meningitis with i.v. anti-pyretics, antibiotics and fluids. He was not responding to the initial antibiotics treatment. Further, MRI BRAIN was suggestive of Bilateral ethmoidal and maxillary sinusitis, right mastoiditis with cholesteatoma. CT Temporal bone showed right chronic suppurative otitis media with cholesteatoma formation causing destruction of ossicles and right sided mastoiditis. Higher antibiotics were started and after CNS findings were subsided, repeat ENT evaluation was done. Patient was posted for modified radical mastoidectomy. His condition improved quickly and was discharged with regular follow up.⁽²⁾

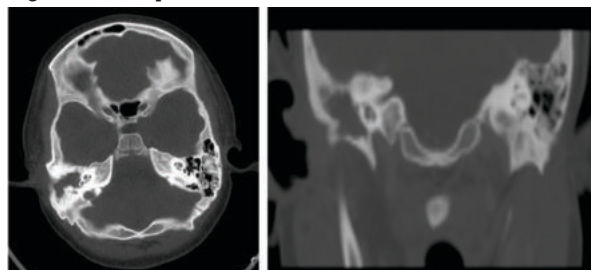


Figure 1. Axial bone window **Figure 2.** Coronal bone window

Ct Findings - Soft tissue attenuation region in right middle ear cavity, expanding the prussak space, eroding scutum and ear ossicles, extending into mastoid.

Findings are characteristic of cholesteatoma.

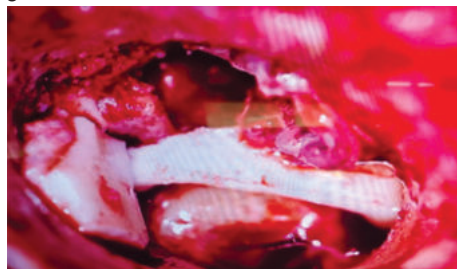


Figure 3. Intra-operative ossicular reconstruction

DISCUSSION

In the past, acute otitis media and chronic otitis media represented severe risk to children owing to the potential of intra and extracranial complications.

As a result of use of antibiotics, there are significant decrease in incidence with intracranial complications from 2.3% to 0.04% and in mastoiditis from 20% to less than 0.5%.

Cholesteatoma is a cyst like growth originating in the middle ear, lined by keratinized, stratified squamous epithelium and containing desquamated epithelium or keratin. Even though it is less common than simple chronic otitis media, cholesteatomatous otitis media is normally associated with complications because of its invasive potential.⁽¹⁾

Despite adequate treatment, approximately a third of patients with meningitis, a potential complication of otitis media, develop permanent neurologic sequelae, including seizures and behavioral disorders.

CONCLUSION

Even though less incidence than in past, intracranial complications by otitis media continues to be a risk in children.

High index of suspicion is essential.

Treating otitis media with judicious rational antibiotics for

optimum duration and follow up care for recurrent otitis media is utmost important to prevent complications of otitis media.

Acknowledgment

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Conflict of interest

There is no conflict of interest.

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