

## *Summary*

Otitis media with effusion is the commonest cause of hearing difficulty and one of the most common reasons for surgical admission during childhood. So this study was using tympanometry to evaluate the mastoid pneumatization by measuring physical volume in children with COME.

In our study 30 children with COME not responding to medical treatment and prepared for myringotomy and tube insertion under general anesthesia, all patients were subjected to complete evaluation as well as basic and special criteria of selection.

Our study showed that patients with otitis media with effusion have a significant sclerotic mastoid, the ear with high initial and or gradual increase in physical volume with time can be considered one of the prognostic factor in chronic otitis media with effusion.

Tympanometry is valuable tool for investigation of otitis media with effusion it is easy to use, provide reproducible results widely tolerated by patients even young children.

## ***Conclusion***

Otitis media with effusion is a prevalent disease and the commonest cause of hearing difficulty among young children.

The blockage of the aditus ad antrum and decrease mastoid pneumatization are among the most important reason for otitis media with effusion to be chronic.

Mastoid pneumatization might be considered as prognostic indicators in otitis media with effusion the estimated prognosis is poor when mastoid pneumatization is poor

In this study correlation between age and postoperative tympanometric findings are non significant.

Tympanometry was found to be an effective test for detection of negative middle ear pressure, being of great value in young children because a voluntary response was not required.

In conclusion postoperative tympanometric follow-up of children with COME by measuring physical volume is more suitable and feasible than CT, because the latter has harmful radiation effect and expensive.

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