

**Assessment of impact of chronic otitis media
with effusion on auditory skills development
using A to Z program in preschool children**

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Phoniatrics

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Summary

Hearing is one of the major senses and it is important for auditory warning and communication (**Alberti, 2001**). The main function of the ear is to convert physical vibration into nervous impulses; while the main function of middle ear is to allow the transmission of complex vibrations of the tympanic membrane to the inner ear (**Luers and Hüttenbrink, 2015**).

Otitis media with effusion is a chronic inflammation, in which a collection of liquid is present in the middle ear space, with absence of the signs of acute infection, or tympanic membrane perforation (**Bluestone, et al 2002**). It is considered the most common disease of infancy and early childhood (**Speers, 2000**).

One of the most common complications of OME is some degree of hearing loss, which is often the patient's chief complaint. It is mainly conductive due to tympanic membrane or ossicular chain changes as stiffness or erosion. Recently, thought that, there is additional sensorineural hearing loss, most probably, due to the passage of toxins through the round window (**Costa et al, 2009**).

Vague presentations of OME in early stages at time of learning and speech development cause problems as DLD, phonological disorders, and educational problems(**Abo el-Magd et al, 2015**).

This study aimed to assess the impact of chronic otitis media with effusion on the development of auditory skills in preschool children aged from 3-6 years, using A to Z hearing intervention program.

All of the 70 children, divided on 2 groups, were subjected to the designed auditory assessment sheet including, assessment of language development and phonology, history of previous medications and surgeries, recent audiological assessment, and auditory skills assessment and scoring at different distances.

The results conducted that, all of the auditory functions are affected with variant degrees, and the increasing distance element was very powerful variable. The main presenting symptom is multiple phonological errors. The assessment of discrimination of non-speech environmental sounds conducted that, it was affected specially with unfamiliar sounds and sounds with the same nature. It is also noted that, phonological discrimination, word discrimination and word identification were affected to a great extent, and they can affect successively the learning and lexical abilities.

Early audiological assessment for patients with mild DLD, or phonological errors is highly recommended for early diagnosis, and intervention for OME, and speech rehabilitation to avoid further language and learning disabilities