Non-surgical Management of Adhesive Otitis in Children

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Objectives

Adhesive otitis is an aseptic inflammation of the middle ear, characterized by retraction and adhesion of the tympanic membrane caused by poor Eustachian tube function. Autoinflation is a technique whereby air is introduced into the middle ear by opening of the Eustachian tube. The objectives of the present study were to evaluate the efficiency of autoinflation in management of adhesive otitis in children.

Materials and Methods

Eight children, aged between four and eight years with chronic adhesive otitis were included in this study. The Moniri® autoinflation device, used in this study, consists of a facemask connected to a T-tube communicating with a balloon at one end and a pump at the other end. Autoinflation may be achieved by mouth/nose with or without the activation of the pump. The children were recommended to perform ≥ 5 autoinflations per day during ≥ 5 of 7 days a week. All children performed otomicroscopy, tympanometry and audiometry before and after treatment and were followed up during 12 months.

Results

All children adhered well to therapy. Positive middle ear pressure and normalization of the position of tympanic membrane after autoinflation was achieved in 13 ears (81%) confirmed by otomicroscopy and tympanometry. Long-term follow-up revealed fluctuating signs of middle ear effusion, adhesions and retraction pockets mainly after upper airway infections. These alterations were reversible by autoinflation.

Conclusions

Autoinflation by the Moniri® device seems promising in the management of adhesive otitis in children and may be an interesting alternative to surgery.