



ISSN NO. 2320-5407

Journal homepage: <http://www.journalijar.com>

INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH

RESEARCH ARTICLE

EVALUATION OF ASYMPTOMATIC GLUE EARS IN CHILDREN SCHEDULED FOR ADENOTONSILLECTOMY.

Dr. Mohammad Ali Hiari.

Otolaryngology Consultant, King Hussein Medical Center.

Manuscript Info**Manuscript History:**

Received: 14 December 2015
Final Accepted: 22 January 2016
Published Online: February 2016

Key words:

Otitis Media With Effusion
Secretory Otitis Media
Myringotomy.

***Corresponding Author**

Dr. Mohammad Ali Hiari.

Abstract

Objective: The aim of this study to evaluate the evidence of Secretory otitis media in patients selected to undergo adenotonsillectomy for other indications.

Patients and Methods: After approval from the institution's ethical committee and informed parental written consent was obtained, 100 patients, 2–13 yr old, undergoing tonsillectomy with adenoidectomy, were enrolled in the study. Every child had complete ear, nose and throat examination with special emphasis to find evidences of Secretory otitis media by the same ENT specialist.

Under general endotracheal anesthesia, all the children underwent adenotonsillectomy as well as myringotomies in both the ears to look for fluid or glue in the middle ear.

Results: All patients were followed up at intervals of 2, 4, 8, 12 weeks, 6 months and 1 year postoperatively to be evaluated for resolution of fluid in middle ear and hearing status.

Preoperative evaluation of ear drums revealed; retracted drum in 48%, dull appearance in 12%, air bubbles behind TM 4%, and normal drum in 36% of cases.

The results of myringotomy showed; bilateral negative pressure in 72% of cases, unilateral thin fluid in 3% of cases, bilateral thin fluid in 20% of cases and glue in 5% of cases. The incidence of asymptomatic Secretory otitis media in our study was 28%.

Conclusion: Otitis media with effusion is asymptomatic and important condition in children. Myringotomy and grommet insertion is an effective treatment which results in drying up of fluid and return of normal hearing status in Secretory otitis media.

Copy Right, IJAR, 2016., All rights reserved.

Introduction:-

Otitis media with effusion (OME) is an inflammation of the middle ear in which fluid accumulates behind the eardrum, without any signs or symptoms of acute infection, and with an intact tympanic membrane. Secretory otitis media, non suppurative otitis media, serous otitis media and mucoid otitis media are synonymous with otitis media with effusion, but these terms are not as accurate. The frequent opacification and edema of the tympanic membrane may hinder the identification of the type of effusion.¹

A total of 25% of these cases are accidentally discovered during routine check ups.² Despite the apparent absence of symptoms, the potential impact on hearing, speech, language and comprehension highlights the need for timely

intervention. It is the most common chronic otological condition in children with the exception of viral upper respiratory tract infections. It is characterized by an alteration in the mucocilliary system in middle ear cleft where fluid accumulates with negative pressure.³

Many studies have associated Secretory otitis media and other middle ear conditions to chronic tonsillitis and hypertrophy of adenoids and URTI.^{4,5,6} Ever since adenotonsillectomy has been found effective and is advocated for treatment of SOM.^{7,8,9}

The aim of this study to evaluate the evidence of Secretory otitis media in patients selected to undergo adenotonsillectomy for other indications.

Patients and Methods:-

The sample of this study was conducted in the Department of Otorhinolaryngology, royal medical services (Amman-Jordan).

After approval from the institution's ethical committee and informed parental written consent was obtained, 100 patients, 2–13 yr old, undergoing tonsillectomy with adenoidectomy, were enrolled in the study.

The children admitted were with any sort of ear complaints or any indication of adenotonsillectomy to remove septic foci as a cause of middle ear infection.

Every child had complete ear, nose and throat examination with special emphasis to find evidences of Secretory otitis media by the same ENT specialist. All children had detailed assessments under surgical microscope aided by X-ray of soft tissue neck for adenoidal enlargement and an audiological assessment. All the children were subjected to automatic tympanometric screening. The cooperative children above the age of five years had pure tone audiometric assessments as well.

Under general endotracheal anesthesia, all the children underwent adenotonsillectomy as well as myringotomies in both the ears to look for fluid or glue in the middle ear.

Results:-

1. All patients were followed up at intervals of 2, 4, 8, 12 weeks, 6 months and 1 year postoperatively to be evaluated for resolution of fluid in middle ear and hearing status.
2. Preoperative evaluation of ear drums revealed; retracted drum in 48%, dull appearance in 12%, air bubbles behind TM 4%, and normal drum in 36% of cases.
3. Hearing assessment of these patients was normal in 92% of cases, and only 8 cases showed mild conductive hearing loss which returned to normal hearing limits 8 months postoperatively.
4. All the patients underwent adenotonsillectomy for which they were admitted and at the same time they were also subjected to bilateral myringotomy to look for fluid in the middle ear and patients who showed signs of Secretory otitis media also underwent grommet insertion at the same time to ventilate the middle ear.
5. The results of myringotomy showed; bilateral negative pressure in 72% of cases, unilateral thin fluid in 3% of cases, bilateral thin fluid in 20% of cases and glue in 5% of cases.
6. The incidence of asymptomatic Secretory otitis media in our study was 28%.

Discussion:-

Otitis media with effusion is a very common problem in children. It denotes the presence of chronic effusion in the middle ear cleft. Otitis media with effusion implies a silent sub-acute stage of otitis media without the acute symptoms of fever or severe otalgia. Its detection involves an assessment of tympanic membrane appearance and middle ear function.

Although an opaque or discolored membrane with air bubbles or an air fluid level is confirmatory, effusion with more subtle visual findings may be missed unless middle ear function is checked by pneumatic otoscopy and tympanometry.¹⁰

Otitis media with effusion is often asymptomatic and, thus, only prospective studies have the potential to monitor accurately "silent" effusions. The controversies regarding the treatment of Secretory otitis media have been around in otorhinolaryngological and pediatrics circle for years and no one has been immune from these.

The main aim of our study was to find out the hidden cases of Secretory otitis media, but in addition to that we evaluate the effectiveness of adenotonsillectomy and myringotomy in the treatment of these cases which also have been shown in other studies.^{9,11,12,13}

Conclusion:-

1. Otitis media with effusion is asymptomatic and important condition in children.
2. Screening and early management of these cases is important in order to prevent late sequel.
3. Myringotomy and grommet insertion is an effective treatment which results in drying up of fluid and return of normal hearing status in Secretory otitis media.

References:-

1. Bluestone CD, Gates GA, Klein JO, Lim DJ, Mogi G, Ogra PL, et al. Recent advances in otitis media. 1. Definitions, terminology, and classification of otitis media. *Ann Otol Rhinol Laryngol Suppl.* 2002;188:8-18.
2. Roland PS, Finitzo T, Frel Patis et al. Otitis media: Incidence, duration and hearing status. *Arch Otolaryngol Head Neck Surg* 1989; 115:1049-1054
3. Dvokski I, Sprom N. Secretory otitis media in childhood: Epidemiologic and Etio-pathogenic aspects, diagnosis and therapy; *Lijec Vjesu (Croatia)*. 1991; 113:430-434.
4. Austin DF. Adenoidectomy for Secretory Otitis Media: *Arch Otolaryngol Head Neck Surg* 1989;115:936-9.
5. Otten FWA, Grote JJ. Otitis media with effusion and chronic upper respiratory tract infection in children: A randomized, placebo-controlled clinical study. *Laryngoscope* 1990;100:627-33.
6. Shah N. Secretory Otitis Media a clinical survey: *J Laryngol Otol* 1968. p. 739-44.
7. Maw AR. Chronic Otitis media with effusion (glue ear) and adenotonsillectomy: Prospective randomized controlled study: *BMJ* 1983;287:15868.
8. Gates GA, Thomas FW. Indications for adenotonsillectomy: *Arch Otolaryngol Head Neck Surg* 1986;112:501-2.
9. Maw AR, Bawden RR. Spontaneous resolution of severe chronic glue ear in children and the effect of Adenoidectomy, tonsillectomy, and insertion of ventilation tubes (grommets): *BMJ* 1993;306:756-60.
10. Finitzo T, Fritetz Patti S, Chinn K et al. Tympanometry and Otoscopy prior to myringotomy: Issues in diagnosis of otitis media. *Int J Paed Otolaryngol* 1992; 24:101.
11. Mandel EM, et al. Myringotomy with and without tympanostomy tubes for chronic otitis media with effusion: *Arch Otolaryngol Head Neck Surg* 1989;115:1217-24.
12. Leek JH. Middle ear ventilation in conjunction with Adenotonsillectomy: *Laryngoscope* 1979;89:1760-3.
13. Gates GA, et al. Effectiveness of Adenoidectomy and tympanostomy tubes in the treatment of chronic otitis media with effusion: *N Engl J Med* 1987;317:1444-51.