

SUMMARY & CONCLUSION

Otitis media is generally considered to occur frequently in children especially when epidemics of U.R.T.I. hits nation. This prospective study was carried out in 149 subjects, 129 of them were patients with acute otitis media (A.O.M.) and 20 healthy persons as a control group. The purpose of the study was to compare the results of the management of acute otitis media by different means including and not including topical nasal decongestant to evaluate its role in the treatment of acute otitis media. Among the factors relevant to healing, the past and present histories of the patients were given special consideration.

In the study group: (129 pt. 158 e)

The patients were assigned to five therapy groups:

- 1) 20 patients (20 ears) to group (I) in which nasal decongestant was applied nasally.
- 2) 30 patients (34 ears) to group (II) in which antibiotic was taken every 8 hours for 7 days.
- 3) 30 patients (38 ears) to group (III) in which antibiotic and nasal decongestant drops were used.
- 4) 30 patients (40 ears) to group (IV) in which management was by myringotomy, antibiotic and nasal decongestant drops

instillation.

- 5) 19 patients (24 ears) to group (V) in which management was by myringotomy and antibiotic administration. So subgroups I, II & III are considered as conservatively treated group while subgroups IV & V are considered as actively treated group.

At the initial examination, (0-examination) the histories of all patients were recorded and we performed the clinical examination and handed out the medicine. At the follow-up examinations which took place 7 days and 21 days after the 0-examination, the condition of the Tympanic membrane was examined with a pneumatic otoscope. tympanometry was employed and atympanogram was plotted to all patient groups (sub-groups).

In the control group 20 healthy subjects were recruited from the local population after thorough E.N.T. examination, and 2 (two) tympanograms were plotted to each subject before and after nasal drops instillation.

It seems obvious from the results of this study that:

1. In a total number of 40 ears (20 persons) there was a

difference in the middle ear pressure (10-20) mmH₂O in 25% of them and the use of the nasal decongestant drops neither had an effect on the middle ear pressure of all the subjects nor had succeeded in reducing (eliminating) the difference in M.E.P. in the same subject so even after the application of the nasal decongestant drops still 25% of the persons had also a difference (10-20) mmH₂O between the right and the left ear.

2. The results of the comprehensive management of the patients in this thesis have demonstrated that, failure to perform the test had occurred in 2% (Dt), perforated tympanic membrane in 3% (Jt), cure in 67% (Mt), middle ear effusion in 14.5% (Wt), eustachian tube dysfunction in 13% (Ut), the healed and improved percentage is 80% (MUt).
3. The management of patients must be based on the clearest possible understanding of the system constituted by the nasal cavity, nasopharynx, eustachian tube and the middle ear. Within this system the eustachian tube probably has at least three physiologic functions with respect to the middle ear: ventilation, protection (from unwanted nasopharyngeal secretions and drainage of normal or abnormal secretion produced within the middle ear itself so:

- A) Attempt to reopen an obstructed E.T. in acute otitis media by the frequent nasal instillation had failed completely and the use of antibiotic was inevitable impressive that the treatment of A.O.M. should be directed toward eradication of infection rather than trials to reareate the middle ear through decongestion of the eustachian tube, especially after noticing that the N.D.D. had no effect in group III as [L_{III} (60.5 %) is inferior than L_{II} (69%) i.e $L_{II} \leq L_{III}$]. Also in group IV & V the results were more or less the same [$(L_{IV}(86.5\%) > L_V (83\%)$ and $V_{IV} (5\%) < V_V (8\%)$].
- B) Active treatment (myringotomy and conventional antibiotic) achieves drainage of the middle ear exudate (or pus) at an early stage, protects the ear from spontaneous perforation of the tympanic membrane , shortens the period of recovery and reduces the number of patients developing persistent middle ear effusion and these regardless the use of the nasal decongestant drops. The discrepancy in the results between the healing percentage of the actively treated group (85 %) and that of conservatively treated group (57%) confirms that active treatment for acute otitis media is of prior choice as it yields the best management.

Middle ear effusion (M.E.E.) a vexing common condition can be detected otoscopically and tympanometrically in many patients especially when examined directly after the subsidence of the acute attack as they were (41.5 % & 20%) of the conservatively treated group at the first and second) follow-up examination and in [17% & 6.5%] of the actively treated group at the first and second follow-up yielding information also that the myringotomized ears are much more capable to escape from the sequelae of A.O.M. Though (Wt=14.5%) these patients should be investigated repeatedly until clearance of the tympanum occurs otherwise further intervention will be necessary.

4. According to the patients histories:
 - a) No difference in results was observed between the allergic and the non allergic children.
 - b) There is a significant correlation between the frequency of prior otitis media episodes and susceptibility to upper respiratory tract infections.