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A Study Of Secretory Otitis Media Occurring In Preschool And School Going Children And Role Of Adenoidectomy In Its Management Presenting At A Premier Teaching Institute Of India.

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ABSTRACT

Otitis Media is one of the commonest diseases in India. Patients usually present very late and mostly when the complications have already set in. SOM is the commonest cause of non suppurative conductive deafness, especially school going children. The Study was done in department of ENT at MGIMS, Sevagram, Wardha, Maharashtra from January 2011 to January 2014. A detailed history with ENT examination was done and recorded on a Performa duly prepared in consultation with senior professors of MGIMS, ethics committee of MGIMS and old studies. Routine investigations like CBC, Urine, X-ray lateral view of nasopharynx, audiological investigations etc. were done in all cases and documented. 100% of the patient complained with recurrent URTI. Increased incidence was found in the 2-6 years age group and more than 70% cases had symptoms of URTI more than 4 episodes per year. All the results were documented and tabulated. Results were also presented in the form of graphs and charts. Various studies show variable results with different procedures and methods. Adenoidectomy shows better statistical results. It was concluded in the study that adenoidectomy plays a definite role in the management of Secretory Otitis Media.

Keywords: Adenoidectomy, Otitis Media, Secretary.

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INTRODUCTION

Secretory otitis media (SOM) is defined as the presence of sterile fluid in the middle ear cleft [1].

Enlarged adenoid is an important cause of recurrent or chronic SOM. Specially, in school-going children, adenoidectomy helps in the resolution of this condition [2].

Aims and Objectives

SOM is the most common cause of non-suppurative conductive deafness in children. Any factor that causes hypoventilation of the middle ear may cause SOM, e.g., enlarged adenoid [3]. Adenoidectomy helps in the resolution of this condition because, i.e., it is known that without hearing, physical and mental development of a child is impaired. So it is utmost important that this condition should be properly diagnosed and treated [3-5].

Indications of adenoidectomy [4-7]

- Clinical symptoms like mouth breathing, chronic nasal
- Adenoid hypertrophy evidenced by lateral nasopharyngeal X-ray
- Recurrent SOM with URI (more than 4 times/year)
- Middle ear effusion persists for 3 months or more.
- Middle ear effusion causes more than 30 dB conductive hearing loss

Extent of Surgery

Adenoidectomy after accompanied with myringotomy with grommet insertion.

MATERIALS AND METHODS

The present study of 100 cases of recurrent SOM (more than 3 episodes/year) both inpatient and outpatient in the department of ENT at MGIMS. From January 2011 to January 2014. A detailed history with ENT examination was done and recorded on a Performa. Routine investigations like CBC, Urine X-ray lateral view of nasopharynx, audiological investigations like impedance audiometry department done in all cases. Randomly we divided the patient (who attended ENT Department and diagnosed SOM) in three surgical groups.

- B/L grommet insertion with adenoidectomy.
- B/L grommet insertion only.
- Adenoidectomy only.

Patients who underwent surgery were followed up at regular intervals (6 weeks, 3 months, and 6 months). Patients who refused surgery were treated by medical management.

Inclusion Criteria

- Children 1-12 years of age.
- Confirmations persistent

Exclusion Criteria

- Children more than 12 years of age
- Children with sensory neural hearing loss or mixed hearing more than 40 dB
- Children with sensory neural hearing loss or mixed hearing loss.
- Children with active otitis externa.

All children were discharged on the next day of the surgery and were asked for regular follow-up. During follow-up, improvement of symptoms and signs and hearing were assessed by using otoscopy and tympanometry.

Following statistical methods used for this study:

- Student’s t test
- Analysis of variance (Anova) and graphical results are made.

Observations

The present clinical study of 100 cases about 57 of them were from rural population and 43 were from urban areas, it included 54 males and 46 females the youngest patient in this sample were 2 years and oldest patient was 12 years of the symptom complex about 70% present with ear block with mouth breathing 100% of the patient complained with recurrent URTI .

Increased incidence was found in the 2-6 years age group and more than 70% cases had symptoms of URTI more than 4 episodes per year and 95% showed B type of curve in impedance test and 70% x-ray of lateral view nasopharynx showed adenoid hypertrophy with compromised airway.

RESULTS

As per Performa a through history was taken. All patients were subjected to general and systemic physical examination mainly to find out fitness of surgery. Local examination of ENT was done to rule out neighboring infective foci or associated condition .A clinical diagnosis was arrived after x-ray nasopharynx and impedance audiometry .Statistics were collected for observation and inferences were drawn.

Fig 1 : Mean age of the Study population among three surgery group

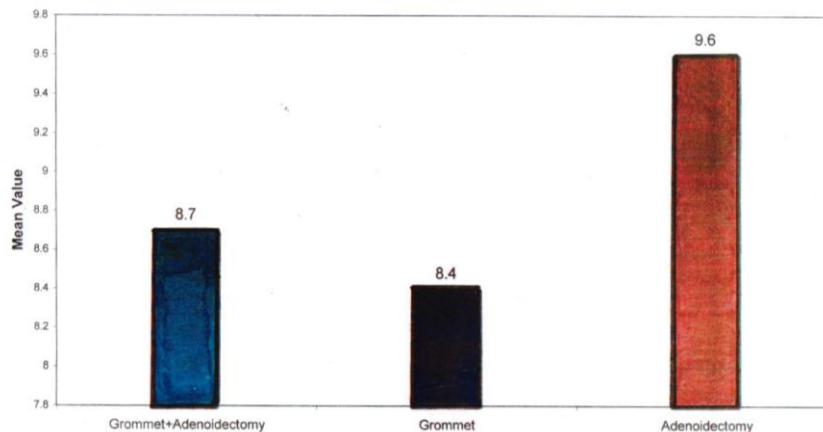


Fig 2 : Sex distribution among the study group

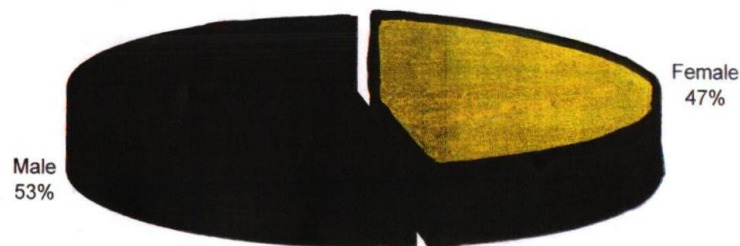


Fig 3 : Preoperative mean loss of hearing in the Study population in different surgery group

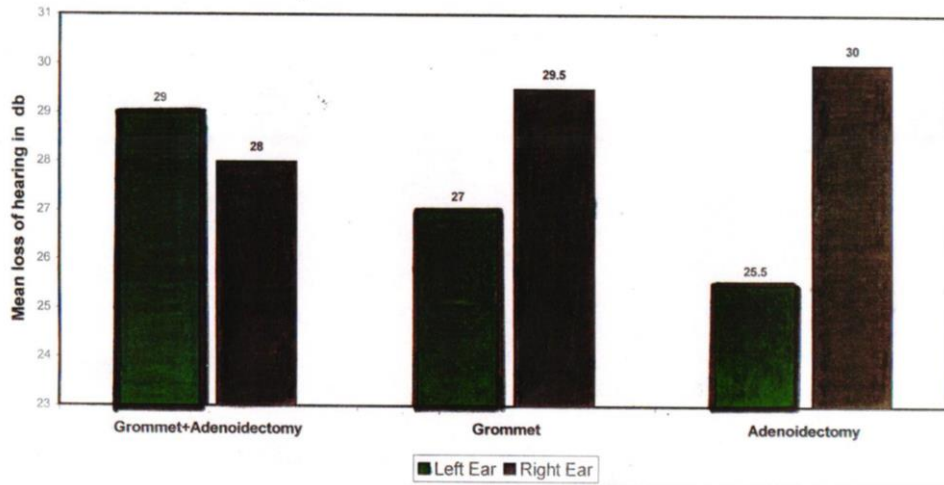


Fig 4 : Postoperative mean loss of hearing in Left ear among the Study population in different type of surgery

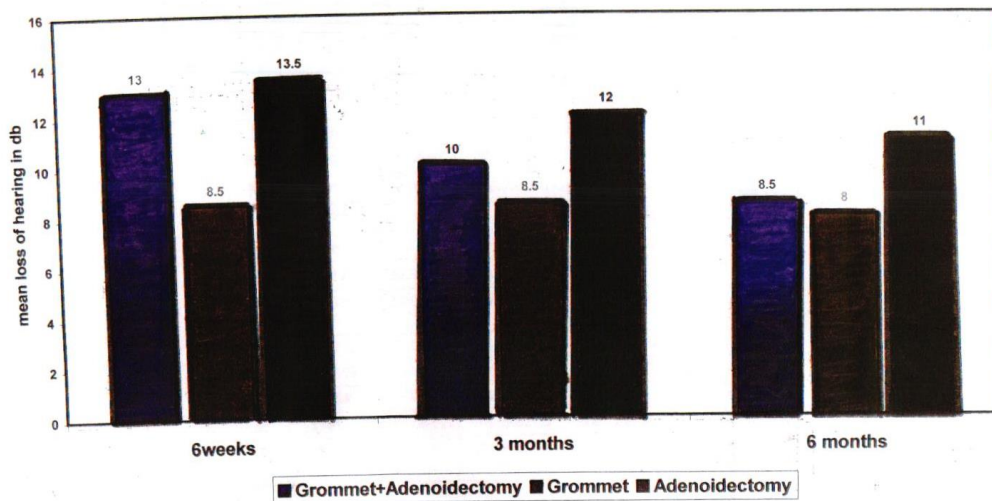


Fig 5 : Postoperative mean loss of hearing in Right Ear among study population in different type of surgery

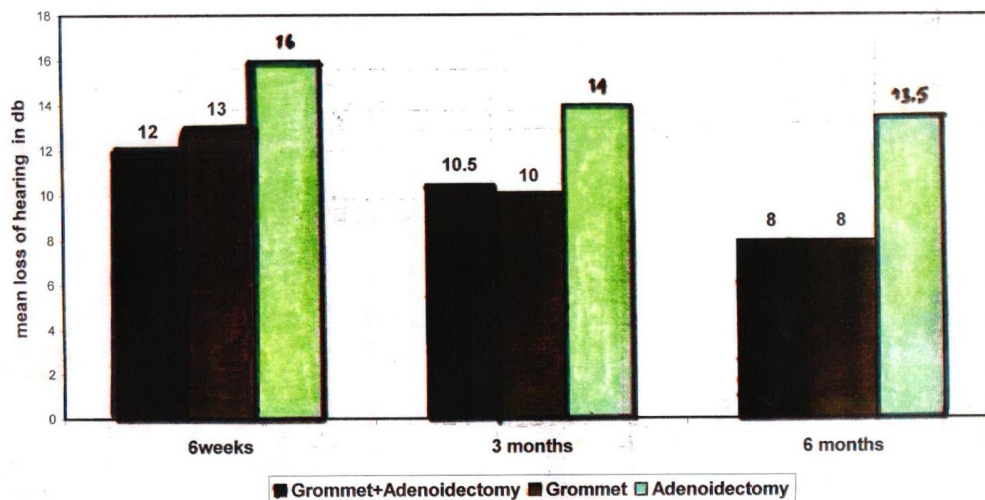


Fig 6 : Mean hearing loss in left ear among study population in different surgery group before and after surgery

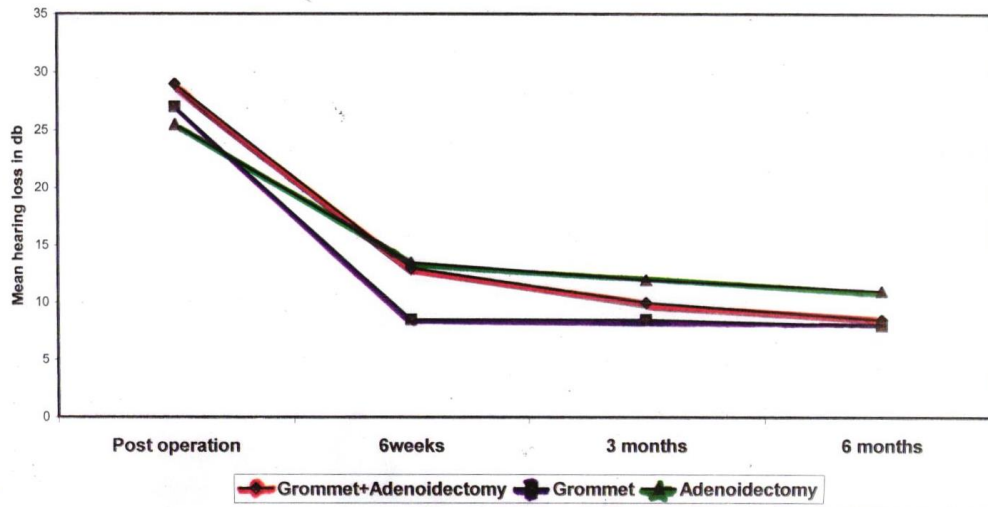
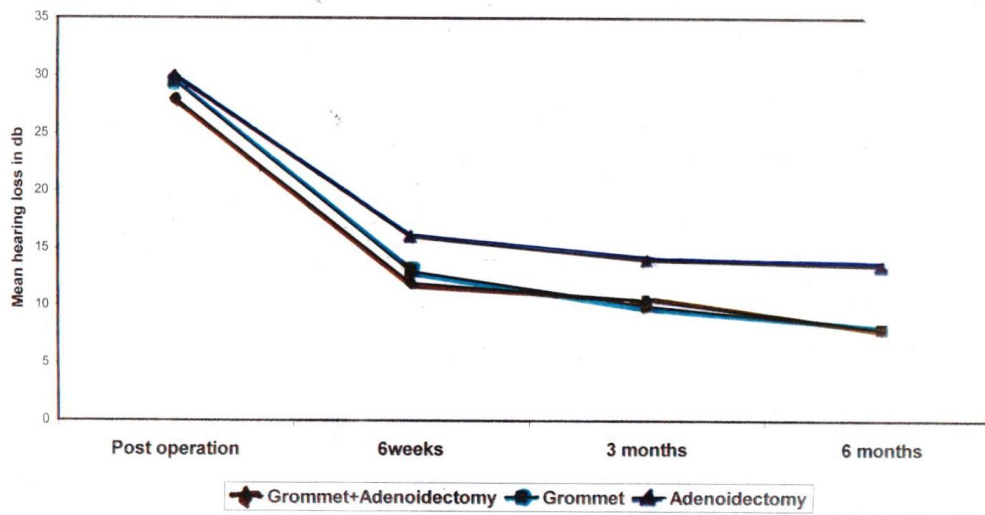


Fig 7: Mean hearing loss in ~~RIGHT~~ ear among study population in ~~different~~ surgery group before and after surgery



CONCLUSION AND SUMMARY

The present study represents a clinical profile of the incidence, probable aetiology of SOM and role of adenoideotomy in its management. The clinical materials obtained from patients who attended ent department of MGIMS. There was an increased incidence in the rural population which account for low socio-economic status, poor hygiene and poor nutritional status. Sex incidence in the present series showed a male: female ratio of 1.7: 1, slightly male predominance. Increased incidence of SOM was present in the 2-12 years of age group. In almost 90% patient had history of impaired hearing with B type of impedance curve and 30-40% patients had history of mouth breathing with reduced airway at lateral view of nasopharyngeal x-ray due to adenoid hypertrophy. So from the study it is aptly proven that young infant who are suffering from recurrent URI with or without history of mouth breathing and recurrent ear symptoms with B type of impedance and failure to thrive they will be more benefited by myringotomy with grommet insertion and adenoideotomy compared to individual surgery alone or by conservative management [7-11]. So no doubt, adenoideotomy takes a definite role in the management of SOM specially for school going children.



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