

A clinical study of chronic suppurative otitis media in patients attending outpatient department in district teaching hospital, Koppal

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Abstract

Background and Objectives: Middle ear infection is quite common in children. CSOM (Chronic Suppurative Otitis Media) is middle ear inflammation greater than three months that results in episodes of discharge from the ear. It may be a complication of acute otitis media. The present study was conducted to find out the magnitude of C.S.O.M as per various variables in our set up. **Materials and methods:** This is a observational study. The study was conducted on 100 cases of clinically diagnosed chronic suppurative otitis media in the age group 20-50 years, attending Out Patient Department (OPD) of Ear, Nose and Throat (ENT) in district teaching hospital, Koppal. **Results:** CSOM was more common in males than females. Ear discharge was the most common complaint followed by ear itching, then decreased hearing and ear pain and lastly tinnitus. **Conclusion:** CSOM is having more prevalence in our set up. So there as an urgent need in bringing awareness among the patients regarding the disease and its possible complications if left untreated.

Key Word: Chronic Suppurative Otitis Media, Decreased hearing

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Otitis Media is one of the commonest infections of the mucosal lining of middle ear cleft. In young children this may result in pulling at the ear, increased crying, and poor sleep. Other features are fever and decreased eating². CSOM is middle ear inflammation of greater than three months that results in episodes of discharge from the ear. It may be a complication of acute otitis media. Pain is rarely present. There can be hearing impairment (HI), which may result in delay in speech, language, and cognitive skills development, especially if commencing prelingually and leading to decreased employability in adulthood³. It is are current or persistent and destructive infection and may present with intra or extra cranial complications. It is of two varieties¹ safe variety² unsafe (atticoantral) variety. Itis more common in people of lower socioeconomic status, illiterates and rural locality. The present study was conducted to find out the magnitude of Chronic Suppurative Otitis Media (C.S.O.M.) as per various variables in our set up.

INTRODUCTION

Middle ear infection is quite common in children. The most common middle ear infection is Otitis media (OM). It is one of the inflammatory diseases. OM is one of the most common cases among children and young adults that require out-patient department (OPD) visit and is frequently preceded by or accompanied with some types of upper respiratory tract infections (URIs).¹ There are two main types, acute suppurative otitis media (ASOM) and chronic suppurative otitis media (CSOM). Acute

MATERIALS AND METHODS

This is a observational study. The study was conducted on 100 cases of clinically diagnosed chronic suppurative otitis media in the age group 20-50 years, attending Out Patient Department (OPD) of Ear, Nose and Throat (ENT) in district teaching hospital Koppal. The study was conducted for duration of 3 months from 20th March 2019 to 20th June 2019. Ethical clearance was obtained from the institute's ethical clearance committee. Informed consent was taken from the cases and controls after explaining the procedure. CSOM was diagnosed after detailed clinical history and examination. Patients were divided in to two groups

- A. Safe type- cases with central perforation
- B. Unsafe type- cases with atticperforation and marginal perforation situated in postero superior quadrant.

General demographic details such as age, sex, socio-economic status, educational qualification, place of residence, environmental conditions were taken into consideration. Socioeconomic status-cases were divided in to three classes lower, middle, higher.

Inclusion Criteria

- Age group 20-50 years
- Patients with chronic ear discharge (> 3 months)
- Patients with safe or unsafe CSOM (perforation)

Exclusion criteria

- Pediatric age group
- Tuberculosis or other chronic systemic diseases
- Patients with renal disorders and hepatic disorders, Alcoholism

Detailed history was taken to assess history of discharge from one ear/ both ears, duration of discharge, quantity of discharge, type of discharge – whether continuous or

intermittent, whether associated with allergy or sore throat or post aural pain etc. These data were noted down in a preformatted proforma.

Examination of ear- Ear was examined for any external abnormality or swelling of auricle, pre and post auricular region. Mastoid region was inspected and palpated to find out any tenderness or any abscessor sinus. Then external auditory canal was examined for any swelling and deformity. The discharge lying in external auditory canal was examined for its amount, odour, and whether discharge was mucoid, mucopurulent, purulent, or blood stained. The discharge was then cleaned and tympanic membrane was examined, for type of perforation, presence of anypolyp, granulation and cholesteatoma. The presence offacial twitching and giddiness on probing the polyp were recorded. Type of perforation and its site, size also noted. Tuning fork test was done to determine type of deafness. Single's speculum was used for fistula test and Eustachian tube patency. Eye's were examined for spontaneous nystagmus. In cases of doubt in establishing diagnosis, the patients were examined under operating microscope.

Examination of Nose: - Anterior and posterior Rhinos copy was done to note any deformity, deviated nasal septum and infection in nasal cavity, sinus and nasopharynx.

Examination of Throat: - Examination of oral cavity and throat including teeth, tongue, palate, pillars, tonsils and pharynx and larynx were done in every patient.

Statistical methodology: Data was expressed in terms of mean±SD. Unpaired 't'-test was used to study the changes in study variables. Pearson correlation was performed to establish the relationship between study variables. p value <0.05 was considered statistically significant.

RESULTS

This is a observational study conducted on 100 cases of clinically diagnosed chronic suppurative otitis media in the age group 20-50 years, attending Out Patient Department (OPD) of Ear, Nose and Throat (ENT). Table 1- Shows the variety of diseases and number of cases. Table 2- Shows the various complaints of patients (symptoms). Ear discharge was the most common complaint followed by ear itching then decreased hearing and ear pain and lastly tinnitus.

Table 1: Variety of diseases and number of cases

Serial number	Types of disease	Number of cases	Number of ears	Percentage
1	Cases with safe variety	72	94	73.43%
	Unilateral	50	50	
	Bilateral	22	44	
2	Cases with unsafe variety	28	34	26.56%
	Unilateral	22	22	
	Bilateral	6	12	
	Total	100	128	

Table 2: Presenting complaints of patients (symptoms)

Symptoms	Safe type	Unsafe type
Ear discharge	94(100%)	28(82.35%)
Decreased hearing	70(74.4%)	24(70.50%)
Tinnitus	5(5.1%)	3(8.8%)
Ear itching	80(81.63%)	15(44.11%)
Pain in the ear	20(20.40%)	20(58.82%)

DISCUSSION

In this study a total of 100 cases of chronic suppurative otitis media were included. The lowest age was 20 years and the highest age was 50 years. Our study shows disease is more common in males than females. It may be due to the fact that female patient attending the O.P.D. were considerably less as compared to males. The most common complaint was found out to be ear discharge, which was seen in almost all cases of safe type and in 82 % of cases of unsafe type. This was followed by ear itching – which was more common in safe type. This was followed by decreased hearing and pain in the ear. Our findings were similar to findings by other studies. Sachdeva and Bhatia noted otorrhoea and deafness as common complaint. Gulati *et al.*⁴ noted hearing impairment in 65.5 percent cases. hhanganiD.L.⁵ reported otorrhoea in all 100 % cases and next common complaint was hearing impairment, which is again similar to the findings of the present study. Tiwari *et al*⁶ and Baruah *et al*⁷ Nath *et al*⁸ observed otorrhoea in 100 % cases. It was also observed that deafness, vertigo, tinnitus, and Earache were more common in unsafe variety than safe variety. Das *et al.*⁹ reported U.R.I. were more prominent associated Infection. Gulati *et al* also observed that apart from aural discharge and perforation the prominent physical sign was U. R. I. including nose sinus and throat infection. Tiwari *et al.* noted recurrent cold in 100 percent safe variety cases and only 68.7 percent unsafe variety cases, the recurrent throat infection in 94.0 percent cases of safe variety and none in unsafe variety Baruha *et al.* also reported U.R.I. as associated factor in most of the cases. Nath *et al* noted in 75.2 percent cases U.R.I. inform of Sinusitis, Rhinitis, Pharyngitis and Adenoiditis. The findings of the present study were more or less similar to the findings of this study. Thus it was observed that recurrence and persistence of infection in nasopharynx, sinuses and throat was a common cause of CSOM. Palva^{10,11} described the role of allergy in the etiology of CSOM. So we observed in our study that, CSOM is more common in males and in lower socioeconomic groups, and more prevalent in rural areas than urban areas. We also studied regarding the clinical profile of the patients – that is the more common age of occurrence, the type of disease presenting commonly, the most common

symptoms and the order of severity symptoms were studied. By this study we also found out that CSOM is more prevalent in our area.

CONCLUSION

So by this study, we came to know about the incidence, prevalence of CSOM in our set up. And also based on the more incidences, the severity of the disease is also being stated. So there as an urgent need in bringing awareness among the patients regarding the disease and its possible complications if left untreated. And also we are emphasizing to improve the health care facilities being available to the patients – both in the form of treatment and also in the form of awareness of preventive measures.

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