

**A Hospital Based Study to Assess the Clinical Profile Patients Diagnosed with Chronic Suppurative Otitis Media.****Manish Kumar<sup>1</sup>, Md.Tausiful Haque<sup>2</sup>, Birendra Kumar<sup>3</sup>**<sup>1</sup>Senior Resident, Department of ENT, Nalanda Medical College and Hospital, Patna, Bihar, India<sup>2</sup>Senior Resident, Department of ENT, Nalanda Medical College and Hospital, Patna, Bihar, India<sup>3</sup>Associate Processor and HOD, Department of ENT, Nalanda Medical College and Hospital, Patna, Bihar, India

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Conflict of interest: Nil

**Abstract****Aim:** The aim of the present study was to find out the magnitude of Chronic Suppurative Otitis Media.**Methods:** The study was conducted on 200 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) The study was conducted for duration of 12 months.**Results:** In the present study, 100 were unilateral cases with safe variety and 44 had cases with unsafe variety. Ear discharge was the most common complaint followed by ear itching then decreased hearing and ear pain and lastly tinnitus.**Conclusion:** There is 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.**Keywords:** Chronic Suppurative Otitis Media, Decreased hearing

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**Introduction**

CSOM is one of the common diseases in otorhinolaryngology practice today. CSOM is more common in developing countries. In our country burden of the disease is too high considering the huge population. Prevalence of CSOM in the world is around 65-330 million/year. Majority of world CSOM burden is attributed by Southeast Asia, Western pacific and African countries. India falls into countries with highest prevalence (prevalence > 4%). [1] CSOM is more common in low socio-economic status groups, communities with overcrowding and poor personal hygiene. Incidence of CSOM has been declining due to improvement in living conditions and use of widespread antimicrobial therapy. [2] However still many patients cannot afford treatment because of economic constraints. Scarcity of qualified surgeons forces these patients to take medical advice from local unqualified persons or sometimes they resort to self-medication. This makes them vulnerable to develop complications of CSOM. Lack of awareness and not attending to hospitals is probably because of ignorance, poverty and traditional beliefs. [3] Lack of sufficient number of qualified ENT practitioners,

lack of health education and health programs aimed at CSOM also adds to it. [4]

Though there is general decline in the incidence of complications, they are still frequently seen in our country. The causes are poor socio-economic conditions, lack of education and awareness as middle ear discharge is still being considered a nuisance rather than a potentially dangerous conditions. The lack of availability of trained specialist is also a major concern. [5] CSOM is a disease condition characterized by persistent perforation of tympanic membrane with recurrent or persistent muco-purulent Otorrhoea. [6] The duration of the Otorrhoea has been a subject of controversy among otolaryngologist with various definitions ranging from six weeks to three months from various studies. [7,8] The complications of Otitis media are divided into two main groups. Intra temporal complications include mastoiditis, petrositis, facial paralysis and labyrinthitis. The intracranial complications include extradural abscess, subdural abscess, and meningitis and brain abscess. Development of complications depends on high virulence of organism, poor resistance of patients, inadequate antibiotic treatment of acute

middle ear and mastoid infection, presence of chronic systemic disease and resistance of organisms to antibiotics which is becoming common these days. [9] Lack of awareness and ignorance further increases the chances of developing either extra cranial or intracranial complications. Complications of CSOM can be lethal if they are not identified and treated properly.

The aim of the present study was to find out the magnitude of Chronic Suppurative Otitis Media.

**Materials and Methods**

The study was conducted on 200 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), Nalanda Medical College and Hospital, Patna, Bihar, India. The study was conducted for duration of 12 months. 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 attic perforation 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 abscess or 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 any polyp, granulation and cholesteatoma. The presence of 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 Rhinoscopy 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**

**Table 1: Variety of diseases and number of cases**

Types of disease	Number of cases	Number of ears
Cases with safe variety		
Unilateral	100	100
Bilateral	44	88
Total	144	188
Cases with unsafe variety		
Unilateral	44	44
Bilateral	12	24
Total	200	256

In the present study, 100 were unilateral cases with safe variety and 44 had cases with unsafe variety.

**Table 2: Presenting complaints of patients**

Symptoms	Safe type	Unsafe type
Ear discharge	188	56
Decreased hearing	140	48
Tinnitus	10	6
Ear itching	160	30
Pain in the ear	40	40

Ear discharge was the most common complaint followed by ear itching then decreased hearing and ear pain and lastly tinnitus.

### Discussion

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). [10] There are two main types, acute suppurative otitis media (ASOM) and chronic suppurative otitis media (CSOM). Acute 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 eating. [11] 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 adulthood. [12]

In the present study, 100 were unilateral cases with safe variety and 44 had cases with unsafe variety. Ear discharge was the most common complaint followed by ear itching then decreased hearing and ear pain and lastly tinnitus. Sachdeva and Bhatia noted otorrhoea and deafness as common complaint. Gulati et al [13] noted hearing impairment in 65.5 percent cases. Hhangani D L [14] 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 [15] and Baruah et al [16], Nath et al [17] 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 [18] 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.

Nath et al [19] 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 [20] described the role of allergy in the etiology of CSOM. CSOM affects 2% of the population. [21] Decreased hearing is the disability caused by the disease. In industrialized countries, hearing loss is known to be the third most prevalent chronic condition in older adults after hypertension and arthropathy. [22,23] This disability interferes with communication ability of an individual with problems in social communication and professional life. This in turn leads to reduced professional efficiency. In cases of CSOM with cholesteatoma, serious complications can occur which can be potentially life threatening.

### Conclusion

There is 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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