

**A Cross Sectional Study of Sociodemographic Profile of CSOM**

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**How to citation this article:** Dr. Vinod Solanki, Dr. Ayushi Gupta, Dr. Riya, “A Cross Sectional Study of Sociodemographic Profile of CSOM”, IJMACR– August – 2026, Volume – 9, Issue –4, P. No. 230 – 233.

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**Type of Publication:** Original Research Article

**Conflicts of Interest:** Nil

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**Abstract**

**Background:** Chronic otitis media (COM) is a common condition seen in patient sat tending the otolaryngology clinic. It is an inflammatory process of the mucoperiosteal lining of the middle ear space and mastoid.

**Methods:** This study was conducted in the Department of Otorhinolaryngology, in Sardar Patel Medical College and PBM hospital Bikaner.

**Results:** 51 patients were male and 49 patients were female. 61.00% patients were from rural area and 39.00% patients were from urban area. Maximum patients were from 15-25 are age groups. Culture sensitivity report haves how n positive results in 17.00 percentage of patients.

**Conclusion:** The study concluded that CSOM is a major health problem in the society involving all age groups with tubo-tympanic type being more common. Majority of the patients belongs to rural area.

**Keywords:** CSOM, Age, Sex

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**Introduction**

Chronic otitis media (COM) is a common condition seen in patients attending the otolaryngology clinic. It is an inflammatory process of the mucoperiosteal lining of the middle ear space and mastoid. <sup>1</sup>

Chronic otitis media is defined as chronic otorrhea through a non-intact tympanic membrane of greater than 12 weeks duration unresponsive to oral and ototopical medications. <sup>2</sup>

Earlier divided into Attico-antral and Tubo-tympanic types, COM has now been classified by Browning into Healed COM, Inactive COM (mucosal or squamous) and Active COM (mucosal or squamous).<sup>3</sup>

The cause and pathogenesis of COM are not entirely clear, but several factors require consideration like disorders of ventilation, reaction of mucoperiosteal lining, infiltration of keratinizing stratified squamous epithelium, secondary infection by saprophytic or pyogenic organisms, bone reaction, erosion, necrosis and sclerosis. <sup>3</sup>

The incidence and prevalence of this condition vary tremendously among different populations. Frequent upper respiratory tract infections and poor socioeconomic conditions may be related to the development of COM.<sup>4</sup>

Although healing is often observed over prolonged periods, there are more patients who develop either recurrent bouts of otorrhea (active COM) or a dry but permanent tympanic membrane perforation (inactive COM).

Inactive otitis media refers to a previously discharging ear that has apparently ceased discharging without probability of resumption in the near future. Often the perforation heals imperfectly with areas of retraction and scarring in the ear drum which do not vibrate in response to sound.<sup>5</sup>

The episodes of otorrhea are often provoked by upper respiratory tract infections. This is particularly common in children. Soiling of the middle ear from swimming or bathing may also lead to intermittent and unpleasant discharges. Those who have not been treated may develop life-threatening complications.<sup>4</sup>

COM produces mild to moderate conductive hearing loss in most patients. Progressive hearing loss may occur among those in whom infection persists. Among Indian children with hearing loss from COM, most had moderate loss and the rest severe.<sup>6</sup>

## Material and Methods

**Study settings:** This study was conducted in the Department of Otorhinolaryngology, in Sardar Patel Medical College and PBM hospital Bikaner.

**Study duration:** 6 months (October 2025 to March 2026)

**Study design:** Hospital – based cross – sectional study

**Study population:** All patients admitted in ENT ward for chronic otitis media and planned for type 1 tympanoplasty

**Sampling technique:** Convenience sampling.

## Inclusion Criteria

1. **Chronic Otitis Media (COM):** History of otorrhea despite at least 12 weeks of adequate topical and oral medication.
2. **Age:** Patients must be between 15 and 45 years old, regard less of sex.
3. **Tympanic Membrane Perforation:** Presence of a perforation of any size or location.
4. **Conductive Hearing Loss:** Mild to mode rate conductive hearing loss.
5. **General Health:** Patients should be in generally good health.
6. **Absence of Upper Respiratory Infections:** No current evidence of infections in the nose or throat.

## Exclusion Criteria

1. **Presence of Cholesteatoma:** Patients with cholesteatoma are excluded.
2. **Sensorineural Hearing Loss:** Exclusion of patients with sensorineural hearing loss.
3. **Previous Tympanoplasty:** Prior tympanoplasty or tympanic membrane repair is an exclusion criterion.
4. **Patients with bilateral disease.**
5. **Major Systemic Illness:** Any major systemic illness that contraindicates surgery.
6. **Attic Retraction:** Presence of attic retraction in the tympanic membrane.

## Procedure

All patients included in the study went through a comprehensive Otorhinolaryngological examination. Following this, they were subjected to additional investigations, which included pure tone audiometry, a

plain X – ray of the mastoid (Law's view) to assess mastoid air cell pneumatization and routine hematological and biochemical tests to valuate over all fitness. Patients in the wet ear group who did not respond to standard antibiotic treatment had cultures performed to determine the sensitivity of the infection.

After completing the examination and necessary investigations, informed consent was obtained from those willing to participate in the study.

### Statistical Analysis

The data was analysed using the SPSS software. Statistical significance was determined with a p-value of less than 0.05, which was considered significant.

### Results

Table 1: Socio-Demographic Profile.

|                    |       |        |
|--------------------|-------|--------|
| Sex (Male: Female) |       | 51:49  |
| Age in years       | 15-25 | 52.00% |
|                    | 26-35 | 37.00% |
|                    | 36-45 | 11.00% |
| Area               | Rural | 61.00% |
|                    | Urban | 39.00% |

51 patients were male and 49 patients were female. 61.00% patients were from rural area and 39.00% patients were from urban area. Maximum patients were from 15-25 are age groups.

Table 2: Culture Sensitivity Test.

| CCCC     | Total (No.) | %   |
|----------|-------------|-----|
| Positive | 17          | 17  |
| Negative | 83          | 83  |
| Total    | 100         | 100 |

Culture sensitivity report have shown positive results in 17.00% of patients.

### Discussion

This hospital based cross-sectional study analysed the clinical profile and epidemiological factors associated

with Chronic Suppurative Otitis Media in 100 patients fulfilling the inclusion and exclusion criteria for a duration of 1 year in the dept. of ENT.

The study found that 15-25 years was most commonly involved age group. Indore wala et al in their study found that the age of the patients ranged from 5 to 76 years with a mean age of  $35 \pm 15.8$  years; the age group 21 - 40 years was the most affected group (36%).<sup>7</sup> Our study male preponderance over female. Browning et al found the incidence of CSOM to be 1.9% in male and 1.2% in female.<sup>8</sup> The study observed that 61.00% of the cases belonged to rural population while 39.00% % cases were from urban locality. The study by Maharjan et al reflected that the prevalence of Chronic Suppurative Otitis Media is high in rural communities of Nepal, Bangladesh and aboriginal children of Northern and central Australia. Probably, the habit of swimming in polluted water in a pond or river regularly may be a factor responsible for discharging ear.<sup>9</sup> The reason for higher incidence in the rural area could be due to lower standard living, poor hygiene, malnutrition, illiteracy, negligence on the part of patient and family members and lack of proper medical facilities in the rural areas.

### Conclusion

The study concluded that CSOM is a major health problem in the society involving all age groups with tubo-tympanic type being more common. Majority of the patients belongs to rural area.

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