



A Study of Clinical Profile in Chronic Otitis Media (Mucosal Type)

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Abstract

Background and objective:

Hearing impairment and ear discharge are the most common symptom an Otorhinolaryngologist comes across in day to day practice. Chronic otitis media is the most common cause of hearing impairment and ear discharge. Thus chronic otitis media is a significant health problem in developing countries. Hence, every ENT surgeon should have thorough knowledge of the same.

Material and methods:

We did a prospective study with the aim to study the characteristic clinical profile in patients diagnosed with chronic otitis media. All the patients were evaluated with detailed history taking and thorough clinical examination.

Results:

The majority of the patients presented with ear discharge (91%), second main symptom was decreased hearing in (65%), followed by ear ache in (29%), tinnitus in (17%) and giddiness in (7%) being the least.

We observed that majority were medium sized perforation 72%. Involving the anteroinferior and posteroinferior quadrant.

Conclusion:

In the present study we observed that Chronic Otitis Media occurs most commonly in females in the 3rd and 4th decade. Ear discharge being the main symptom followed by decreased hearing and ear ache. Very few complaints of tinnitus and giddiness. Most of the perforations of tympanic membrane were of medium size followed by small size with large size perforation being least. Majority of perforations were involving the Posteroinferior and Anteroinferior quadrants.

Keywords

Chronic Otitis Media; Clinical Profile; tinnitus; Giddiness; Hearing impairment; Otorrhea; Ear Discharge

Introduction

Hearing impairment and ear discharge are the most common symptom an Otorhinolaryngologist comes across in day today practice. Chronic otitis media is the most common cause of hearing impairment and ear discharge. Thus chronic otitis media is a significant health problem in developing countries. Hence every ENT

surgeon should have thorough knowledge of the same. Earlier the morbidity, mortality and complications were higher due to inadequate examination and treatment.

Therefore there is a need to have a standard protocol of characteristic clinical features and audiological evaluation of chronic otitis media.

Introduction of Otomicroscopy helped in better understanding of the disease process.

Advent of sophisticated audiological equipment helped in accurate assessment of hearing loss. The use of appropriate antibiotics reduced the complications. The primary aim of treatment is to achieve dry ear and improve the hearing. The definitive treatment of COM is surgery in the form of tympanoplasty with or without mastoid exploration thus eradicating the disease from the middle ear including mastoid and reconstruction of hearing mechanism. High magnification microscope, introduction of micro drill aids in achieving these goals.

Aim:

To study the characteristic clinical profile in patients diagnosed with Chronic Otitis Media.

Objective:

To study the clinical profile of chronic otitis media.

MATERIALS AND METHODS

This is a prospective study carried out over a period of 2 years. With the aim to study the characteristic clinical profile in patients with chronic otitis media of mucosal type.

The data collected from the patients diagnosed to have chronic otitis media of mucosal type by a detailed history taking and clinical examination including otomicroscopy examination. Patients between the age group of 11 to 50 years were included in the study. Patients with otitis externa, traumatic perforation of tympanic membrane, congenital hearing loss and sensory neural hearing loss were excluded from the study.

Sample size: 100 patients were included in the study

Sampling method: Purposive sampling

Study design: Prospective study

Inclusion criteria: Patients with ear discharge more than 3 months and diagnosed to have chronic otitis media of mucosal type between the age group of 11-50 years.

Exclusion criteria:

Patients with otitis externa.

Patients with traumatic perforation of tympanic membrane.

Patients with previous history of ear surgery.

Patients with congenital hearing loss.

Patients with squamosal type of CSOM

Method of collection of data: The data collected from the patients

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diagnosed to have chronic otitis media of mucosal type by a detailed history taking and clinical examination including otomicroscopy examination.

DISCUSSION AND ANALYSIS

The present study was conducted on 100 mucosal type of CSOM. They were studied on the basis of their clinical profile.

Age group

In our study, majority were in the age group of 21-30 years (63%) followed by 24% between the age group of 31-40 years, remaining patients in the age group of 11-20 years (10%) and 41-50 years (3%) (Table 1).

Age in years	No. of patients	%
21-30	63	63
Nov-20	10	10
31-40	24	24
41-50	3	3
Total	100	100

Table 1: Age wise distribution.

This corresponds to study conducted by Islam et al. [1], who observed majority were also between the age group of 21-30 (38.7%) and 31-40 (16%).

Similarly in another study done by Kumar et al. [2], age wise, majority of the patients belonged to the age group ranging from 21 to 30 years.

Also a study by Deosthale et al. [3] observed that 45.65% were in the age group of 21-30 years.

In our study the age group ranged from 11-50 years. Our observations are as follows:

In our study, 63 patients (63%) were from the age group of 21-30 years. 24 patients (24%), 10 patients (10%), 3 patients (3%) in the age group of 31-40 years, 11-20 years and 41-50 years respectively.

Gender distribution

In present there is a preponderance of female patients (65%) followed by male patients (35%) (Table 2).

Gender	No. of patients	%
Female	65	65
Male	35	35
Total	100	100

Table 2: Gender distribution.

While another study by Priya et al. [4] also observed that out of 88 patients studied 47 were females while 41 were males.

In a study conducted by Kumar et al. [2], both sexes were almost equally affected with slight female preponderance. (52%) patients were female and (48%) patients were male.

In our study gender distribution was also observed and the observations are as follows:

In the present study 65 patients (65%) were females and 35 patients 3 (35%) were males.

Clinical symptoms

In our present study the majority of the patients presented with ear discharge (91%), second main symptom is decreased hearing in (65%), followed by earache in (29%), tinnitus in (17%) and giddiness in (7%) being the least (Table 3).

Age in years	Age in years		Age in years
	Age in years	Age in years	
Ear Discharge	59 (90.8%)	32 (91.4%)	91 (91%)
Decrease Hearing	41 (63.1%)	24 (68.6%)	65 (65%)
Ear Ache	21 (32.3%)	8 (22.9%)	29 (29%)
Giddiness	5 (7.7%)	2 (5.7%)	7 (7%)
Tinnitus	10 (15.4%)	7 (20%)	17 (17%)

Table 3: Clinical symptoms.

In a similar study conducted by Bhusal et al. [5], all the patients complained of intermittent otorrhoea and hearing loss. Only 20% of them complained of tinnitus in the affected ears.

Similarly a study conducted by Shrestha et al. [6], it was observed that the most common clinical presentation of COM mucosal type was ear discharge (98%) and decreased hearing (80.7%) with other presentations like earache and tinnitus.

Another study by Abassi et al. [7] noted that the majority of clinical feature were otorrhoea (100%), Otalgia in (41.7%), tinnitus (50%) and vertigo (25%).

In another study by Desbassarie et al. [8] observed that 95.3% patients had ear discharge as their chief complaint, accompanied by hearing loss in 53.5% patients.

In the present study the major clinical symptoms observed was ear discharge on 91 patients (91%), then decreased hearing in 65 patients (65%), followed by earache in 29 patients (29%) and giddiness and tinnitus in 7 patients (7%) and 17 patients (17%) respectively.

Laterality of Disease

In our study majority had disease in the left ear in (49%) patients followed by right ear in (29%) and patients with bilateral involvement in only 22% of cases (Table 4).

Laterality	Total	%
Left	49	49
Right	29	29
Bilateral	22	22
Total	100	100

Table 4: Laterality.

In a study by Rafique et al. [9], out of 90 cases, 45 were affected in the left side ear while 35 patients right side ear was involved.

In a study conducted by Kumar et al. [2] who also came to the same consensus that left ear was more commonly involved in their study (58.33%).

In another study by Bhusal et al [5], the left ear was affected in 30 patients (60%) patients, whereas 20 patients (40%) in the right ear.

In our study the laterality of the patient was found to more

towards left ear in 49% patients followed by right ear in 29% patients with bilateral involvement in only 22% of cases.

Size of Perforation

In the present study it was observed that 72 patients (72%) had medium sized perforation (involving 2-3 quadrants) followed by 15 patients (15%) had small sized perforation (involving only 1 quadrant) and 13 patients (13%) had large sized perforation (involving all the 4 quadrants) (Table 5).

Perforation Size	Total
Large Size	13 (13%)
Medium Size	72 (72%)
Small Size	15 (15%)
Total	100 (100%)

Table 5: Distribution perforation size. This corresponds to a similar study by Islam et al. [1], which noted medium sized perforation to be more common.

In our study we have divided the size of perforation in to large (involving all 4 quadrants), medium (involving 2-3 quadrants) and small (involving 1 quadrant). In the present study it was observed that 72 patients (72%) had medium perforation, 15 patients (15%) had small perforation and 13 patients (13%) had large perforation.

Site of Perforation

In our study we found that site of perforation in 48 patients (48%) was at Posteroinferior+Anteroinferior, 22 patients (22%) was at Anterosuperior+Anteroinferior, 13 patients (13%) site of perforation was at Anterosuperior+Anteroinferior+Posterosuperior+Posteroinferior, 8 patients (8%) site of perforation was in the posteroinferior quadrant, 7 patients (7%) had posteroinferior perforation and 2 patients (2%) has Posterosuperior+Posteroinferior site of perforation (Table 6).

Site of Perforation	No. of patients	%
Posteroinferior+Anteroinferior	48	48
Anterosuperior+Anteroinferior	22	22
Anterosuperior+Anteroinferior+Posterosuperior+Posteroinferior	13	13
Anteroinferior	8	8
Posteroinferior	7	7
Posterosuperior+Posteroinferior	2	2
Total	100	100

Table 6: Site of perforation.

Similar observations were made by Bhusal et al. [5], that majority of the perforations involved the Posteroinferior and Anteroinferior quadrants followed by Anterosuperior and Anteroinferior and all four quadrants perforations.

In our study we found that site of perforation in 48 patients (48%) was at Posteroinferior+Anteroinferior, 22 patients (22%) was at Anterosuperior +Anteroinferior, 13 patients (13%) site of perforation was at Anterosuperior+Anteroinferior+Posterosuperior+Posteroinferior, 8 patients (8%) site of perforation was in the posteroinferior quadrant, 7 patients (7%) had posteroinferior perforation and 2

patients (2%) has posterosuperior+Posteroinferior site of perforation.

CONCLUSION

Considering the observations of the present study and we conclude that Chronic Otitis Media occurs most commonly in females in the 3rd and 4th decade.

Characterizing the symptomatology of chronic otitis media majority of the patients presents with ear discharge as main symptom followed by decreased hearing and ear ache. Very few complaints of tinnitus and giddiness were registered.

On clinical examination perforation of tympanic membrane are more of medium size followed by small size with large size perforation being least involving the anteroinferior and posteroinferior quadrant.

Therefore early diagnosis by thorough history taking and proper clinical examination helps in timely intervention by surgical treatment, thereby improving the quality of life.

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