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Study Of Clinical Presentation Of Complication Of Chronic Suppurative Otitis Media.

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ABSTRACT

Chronic suppurative otitis media is characterised by recurrent or persistent ear discharge (otorrhoea) over 2-6 weeks through a perforation of the tympanic membrane. Typical findings may also include thickened granular middle ear mucosa, mucosal polyps, and cholesteatoma within the middle ear. Intratemporal complications include petrositis, facial paralysis, and labyrinthitis. The present study was conducted in the Department of ENT, in our institution. The sample size was 50 patients. It is prospective study involving Indoor and Emergency patients. All patients with UNSAFE CSOM with complications were selected. It shows that Otorrhea in (100%), Otalgia in (90%), Hearing Loss in (88%), Fever in (84%), Headache in (52%), Altered Sensorium in (50%) are most common presenting Clinical Features. The priority of treatment such as administration of systemic antibiotics, neurosurgical treatment of the complication and treatment of the ear lesions should be judged by an otologist. It is hoped that this study might give some options and awareness to all otolaryngologist and general practitioners which will result in early diagnosis, prompt treatment, and further reduction in mortality.

Keywords: Chronic suppurative otitis media, Otalgia, Hearing Loss.

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INTRODUCTION

Chronic suppurative otitis media is characterised by recurrent or persistent ear discharge (otorrhoea) over 2-6 weeks through a perforation of the tympanic membrane. Typical findings may also include thickened granular middle ear mucosa, mucosal polyps, and cholesteatoma within the middle ear. Intratemporal complications include petrositis, facial paralysis, and labyrinthitis [1, 2]. Acute suppurative otitis media usually causes severe deep ear pain, fever, and a conductive hearing loss in the affected ear. The purulence in the middle ear is also present in the mastoid air cells because they are connected. Intracranial complications include lateral sinus thrombophlebitis, meningitis, and intracranial abscess. Sequelae include hearing loss, acquired cholesteatoma, and tympanosclerosis [3]. Intracranial complications secondary to chronic otitis media (COM) include extradural abscess, subdural abscess, meningitis (with or without encephalitis), otogenic brain abscess, and lateral or sigmoid sinus thrombosis [4].

MATERIAL AND METHODOLOGY

The present study was conducted in the Department of ENT, in our institution. The sample size was 50 patients. It is prospective study involving Indoor and Emergency patients.

Inclusion criteria

- All patients with UNSAFE CSOM with complications were selected.

Exclusion criteria

- Patients with tubotympanic/ safe type of disease.
- Patients with h/o ASOM.

Cases selected were subjected to detailed history and clinical examination as per to standard format. Otoscopy or Examination under microscopy (EUM) was done in every patient. Every patient underwent CT scans of temporal bone. In case of intracranial complication CT brain was done with HRCT.

Due to lack of neurological facilities, all otogenic brain abscess were treated in the Department of ENT, by aspiration, either through transmastoid route or through properly placed burr hole, repeated as necessary.

RESULTS

The incidence of complication is seen more commonly in Males 28 (56%) of cases than in females 22 (44%) of cases.

Incidence of complications is maximum during first three decades of life. About 46 (90%) of cases are below 30 years of age.

Table 1: Age wise patient distribution

Age group	Number of Cases	Percentage (%)
0-10	15	30
11-20	19	38
21-30	12	22
31-40	3	06
41-50	1	02
Total	50	100

Incidences of complications are maximum during first three decades of life. About 19 female cases (86.36%) out of 22 are below 30 years of age.

Right ear is commonly involved in 28 (56%) of cases, then Left ear in 16 (32%) of cases and Bilateral side was in 6 (12%) of cases.

As per to our study in both Male and Female cases Right ear is commonly involved in pathology. Right ear in males in 15 (53.57%) of cases and in females in 13 (59.09%) of cases. Left ear in males in 9 (32.14%) of cases and in females in 2 (9.09%) of cases.

It shows that incidence of Complication of otitis media is more common in Low Socio-Economic group, that is Below Poverty Line in 46 (92%) of cases.

Table 2: Clinical features wise patient distribution

Sr.No.	Clinical Features	Number of Cases	Percentage
1	Otorrhea	50	100
2	Otalgia	45	90
3	Hearing loss	44	88
4	Fever	42	84
5	Headache	26	52
6	Altered sensorium	25	50
7	Vomiting	23	46
8	Postauricular swelling	22	44
9	Meningeal signs	20	40
10	Cerebellar signs	15	30
11	Postauricular discharge	10	20
12	Disturbed vision	09	18
13	Vertigo	07	14
14	Convulsion	06	12
15	Cranial nerve palsy	04	8
16	Tinnitus	03	06
17	Swelling Elsewhere	02	04

Above table shows the list of signs and symptoms and their percentage that occurred in our study of 50 cases.

It shows that Otorrhea in (100%), Otalgia in (90%), Hearing Loss in (88%), Fever in (84%), Headache in (52%), Altered Sensorium in (50%) are most common presenting Clinical Features.

Table 3: Complications wise patient distribution

Complication	Numbers of cases	Percentage
Intra-cranial	23	46
Extra-cranial	27	54
Total	50	100

In above table it shows that in our study of 50 cases Intra-cranial complication was seen in 23 (46%) of cases. Extra-cranial complication was seen in 27 (54%) of cases.

DISCUSSION

This study is done in our hospital a tertiary health care centre, a total 50 cases of complications of chronic suppurative otitis media were observed, studied and analysed in depth. All cases in our study were otogenic in origin. Cases studied are presented under following headings with our experiences and comparison with other studies wherever possible. In the present study we had a sample size of 50 patients. Out of 50 cases 28 (56%) were male cases and 22 (44%) were female cases. Males predominant in our study.

In our present study, the incidence of complications are more common in first three decades of life. About 46 (96%) of all patients are below 30 years of age. In our study youngest patient was of 5 years and oldest patient was of 50 years. In our present study, the incidence of complications in male cases is more common in first three decades of life, about 27 (96.43%) out of 28 cases are below 30 years of age. Similarly in female cases complications are common in first three decades of life, about 19 (86.63%) out of 22 cases are below 30 years of age.

In our study of 50 cases we encountered that Right ear was more commonly involved in 28 (56%) of cases, then Left ear in 16 (32%) of cases and Bilateral ear in 6 (12%) of cases. Right ear was commonly involved in Male cases in 15 (53.09%) out of 28 cases and female cases in 13 (59.09%) out of 22 cases.

In our study, all the patient presented with longstanding history of eardischarge seen in 50 (100%) of cases, mostly scanty, foul smelling, purulent and blood stained. This is due to late presentation for review to a consultant due to poor access to major hospitals by the rural populations and due to high propensity for secondary infections due unhygienic living conditions and hot and humid environmental conditions.

Headache is said to be one of the earliest and most constant symptom of intracranial complications. It signifies raised intracranial tension. The onset of headache in patient of chronic otitis media should arouse the suspicion of intracranial spread of infection, warranting prompt attention. It may be very difficult to assess headache in children and seriously ill patients. So we cannot rely entirely on headache for the detection of intracranial complications, nor can we exclude them by its absence [5-7].

The most important tool leading to the early diagnosis of impending or early complications are precise thinking and careful thoughtful history and physical examination, with attention to clinical indicators that suggest an impending complication, which can easily include brain abscess. The possibility of intracranial spread of suppuration should be considered in a cases which is not doing well by the otologist's usual standards, or when pain and headache is prominent [8].

CONCLUSION

The priority of treatment such as administration of systemic antibiotics, neurosurgical treatment of the complication and treatment of the ear lesions should be judged by an otologist. It is hoped that this study might give some options and awareness to all otolaryngologist and general practitioners which will result in early diagnosis, prompt treatment, and further reduction in mortality.

REFERENCES

- [1] Osma U, Cureoglu S, Hosgoglu S: The complications of chronic otitis media: report of 93 cases, J Laryngol Otol 114:97-100, 2000.
- [2] Berry S, S C Gandrita, N C Saxena, The role of computed tomography in unsafe chronic suppurative otitis media. Indian Journal of Otolaryngology and Head Neck Surgery. Vol. 50, No 2, Apr - June 1988
- [3] Mafee M. F., G.N. Valvassori. Arvind Kumar, L. Applebaum: Computed Tomography of the middle ear in the evaluation of Cholesteatoma and other soft tissue masses: comparison with Pluridirectional tomography. Radiology 148, Aug 1983, pg 465-472



- [4] Johnson D.W, R.L.Voorhees, R.B. Lufkin, W. Hanafee, Canalis. Cholesteatoma of temporal bone: role of computed tomography. Radiology 1983, vol. 148, Sept. 733-737
- [5] Swartz JD : Cholesteatomas of the Middle ear : Diagnosis , etiology and Complications , Radiology clinics of North America ,vol.22, No 1,Mar 1984, pg 15-34
- [6] Jackler R K, Williams P, Dillon, Robert A, Schindler : Computed tomography in suppurative ear disease: A correlation of surgical and radiographic findings. Laryngoscope: vol. 94, June 1984: 746-752.
- [7] Mafee M. F., Barry L. Levin, EL Apple Baum, Mario Campus. A Comparison of CT scan and operative findings. The Otolaryngologic Clinics of North America.Vol.21,1988,pg 265-292
- [8] Banerjee A., L.N.Flood, P.Yates, K. Clifford, Computed tomography in suppurative ear disease: Does it influence management? The Journal of Laryngology and Otology, June 2003, vol.117,454-458