

Clinical Study of Patients of Chronic ear Discharge attending OPD in Govt. Medical College Hospital Jagdalpur, Bastar

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Original Article

Abstract: Objective: Clinical study of the patients suffering from Chronic ear discharge. **Material and Methods:** Patients attending O. P. D. of a Govt. Medical College Hospital Jagdalpur, were taken in to consideration for study .Detail history and clinical examination were carried out of all selected patients. Thus 128 ears of one hundred cases included in the study. **Statistical analysis:** Statistical analysis was expressed in terms of simple proportion. **Results:** Otorrhoea was present in most of the sampled cases followed by deafness, tinnitus, headache, earache and vertigo. Recurrent nasal and throat infection was the most common associated factors responsible for chronic ear discharge. **Conclusion:** There is an urgent need to bring awareness among the masses about various aspects of the disease; similarly consulting doctors must be motivated for rational use of drugs, by keeping in mind the development of resistance against antibiotics.

Keywords: Résistance, Antibiotic, Deafness.

Introduction:

Middle ear infection and chronic ear discharge or middle ear infections(C.S.O.M.) is one of the most common conditions met in the ear, nose, throat, outpatient department in our country. Father of Modern Medicine, Hippocrates was the first to describe Acute Otitis Media but thought its origin secondary to brain abscesses. Centuries later Morgagni showed that suppuration in ear was primary lesion. Most of the patient of C. S. O. M. is suffering from sequelae of acute S. O. M. which has not been treated or else treated inadequately. Impotence of this disease lies in its chronicity and complications. Chronic middle ear infection is known as chronic suppurative otitis media (C.S.O.M.).It is of two varieties 1) safe variety 2) unsafe (atticoantral) variety. Most Dreaded complication is in those children who lose their hearing and this handicap reduces their chances of advancement and also their utility to society thus resulting in a great national loss. This prompted the authors to undertake this study to find out the magnitude of Chronic Suppurative Otitis Media (C.S.O.M.) as per various variables.

MATERIAL AND METHODS: This study was carried out in the department of E.N.T., BRKM Medical college, and maharani hospital Jagdalpur C.G. between 1stJan. 2011 to 30th June 2011. One hundred cases ,after clinical examination and those found to be suffering from C.S.O.M. were placed in two separate groups with tubo tympanic disease (safe variety)or atticoantral disease(unsafe variety),and third group – mixed variety which includes bil. cases with safe and unsafe variety in different ears. ,after detailed otological examination.

all the sampled patients were recorded in a predrawn proforma. Detailed history was taken to settle a clinical diagnosis and following points were noted: -

- a. History of discharge from one or both ears.
- b. Duration of discharge.
- c.Discharge i.e. Mucoïd, mucopurulent, purulent, and having foul smelling or odourless. d. e. f. g.
- d.Quantity of discharge.
- e. Whether discharge is continuous or intermittent.
- f. Whether any sign of Otitis Externa
- g. History of allergy, common cold, sore throat or tuberculosis and it's relation to Otorrhoea if any was recorded.
- h. Post aural pain and headache.
- i. Has the patient received any treatment?

Examination of Ear: - Auricular examination was done 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 it's 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 facial twitching of 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 E, 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 were conducted to note any deformity, deviated 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.

Skigram Mastoid Region: - Skigram of mastoid region of both side taken to study the pattern of pneumatization of mastoid cells and type and extent of disease.

FINDINGS: After detailed clinical examination, data collection and analysis of the collected data, patients of C. S. O. M. has been divided into three groups. First group include patients with safe variety, second group includes patient with unsafe variety, and third group includes bilateral mixed variety with both safe and

unsafe variety ears. Table –I reveals of 100 cases with 128 ears, safe variety of cases were 70 in number (88 ears), including 52 unilateral safe and 18 bilateral safe, and 26 cases of unsafe variety including 20 unilateral and 6 bilateral cases. Besides this 4 cases were in bilateral mixed variety i.e. safe and unsafe both. Cases with safe variety were 68.7%, unsafe variety 25%, mixed variety 6.25% of total number of cases.

Table -2 Reveals various symptoms of disease: - Most common symptom of disease was Otorrhoea present in 92% of total No. of cases followed by hearing loss in 70.3% of total number of cases. Otorrhoea was present 100% in all cases of safe variety, 81.2% of unsafe variety and 50% of cases of mixed variety. Hearing loss was present in 72.7% of safe variety, 81.2% of unsafe variety and 50% of mixed variety. Tinnitus was present in 7%, otalgia in 4.6%, and vertigo in 3.1% of total number of cases. In safe variety ears tinnitus, otalgia and vertigo were present 4.5%, 2.21%, 1.1% respectively while in unsafe variety tinnitus, otalgia, vertigo 12.5%, 12.5%, 9.31% respectively. Symptoms of tinnitus, otalgia, vertigo were more in unsafe variety cases.

Table 1: Variety of disease and number of cases

Sr.No.	Type of cases	No. of cases	No. of ears	Percentage%
1	Cases with safe variety	70	88	68.75
	a.unilateral	52	52	
	b.bilateral	18	36	
2	Cases with unsafe variety	26	32	25.00
	a.unilateral	20	20	
	b.bilateral	06	12	
3	Cases with bill. mixed variety	04	08	6.25
	Total	100	128	

Table 2: various symptoms

Sr.No	Symptoms	Safe variety	Unsafe variety	Mixed variety	Total	Percentage%
1	Otorrhoea	88(100%)	26(81.2%)	04(50%)	118	92.1
2	Hearing loss	64(72.7%)	26(81.2%)	04(50%)	90	70.3
3	Tinnitus	04(4.5%)	04(12.5%)	01(12.5%)	09	7.0
4	Otalgia	02(2.2%)	04(12.5%)	-	06	4.6
5	Vertigo	01(1.1%)	03(9.31%)	-	04	3.1

Table 3: Associated factors

Sr.No.	Associated factors	Safe cases No.	Unsafe cases No	Mixed variety No	Total	Percentage%
1	Rec.nose& sinus infection	68(97.1%)	04(15.3%)	01(25%)	73	73
	a.nose	52	04	01(25%)		
	b.sinus	16	-	-		
2	Nasal allergy	08(11.4%)	-	01(25%)	09	09
3	Rec.throat infection	64(91.4%)	08(30.7%)	02(50%)	74	74
	a.ch.tonsillitis	12	02	01		
	b.CH.pharyngitis	52	06	01		
	c.Adinoiditis	04	-	-		
	d.laryngitis	-	-	-		

Table –III reveals that in safe variety of cases recurrent nasal and sinus infection were present in 97.1% and nasal allergy 11.4%, recurrent throat infection 91.4%. Recurrent throat infection includes chronic tonsillitis, chronic pharyngitis, chronic laryngitis, adenoid hypertrophy. In unsafe variety recurrent nose and sinus infection, nasal allergy, recurrent throat infection were 15.3%, 0%, 30.7% respectively. In mixed variety 25% cases were affected by recurrent nasal and sinus infections, nasal allergy 25% and 50% were by recurrent throat infections. Recurrent throat infection which includes chronic tonsillitis, chronic pharyngitis, laryngitis, adenoid hypertrophy. U.R.I. are significant in etiology and persistence of disease C.S.O.M. and one will have to treat infections of nose & sinus, throat whether the ear is safe or unsafe variety concomitantly. In safe variety of cases out of 88 ears, amount of discharge was copious in 86.9 percent, scanty in 13%, odourless in 97.8%, foul smelling in 2.1%, yellowish colour 58.6%, whitish colour in 36.9%, greenish in only 4.3 % cases. Type of discharge was mucopurulent in 86.9 % and mucoid in 13.0% percent of cases and purulent in none of the cases. Discharge was recurrent in 86.9 and continuous in 13.0 percent cases. In 70.2 percent cases duration of discharge was up to 5 year and in remaining 29 percent cases the duration was above 5 years. In out of 26 unsafe variety ears, discharge was mainly scanty, foul, smelling, yellowish and purulent, in majority of cases in 58.2 percent, duration of discharge was 5 years or less while more than 5 years duration was noted only in 41.8 %.

Discussion:

Common complaint of patients with C.S.O.M. was Otorrhoea in the present study followed by deafness. Sachdeva and Bhatia noted otorrhoea and deafness as common complaint. Gulati *et al.* (1) noted hearing impairment in 65.5 percent cases. Chhangani D.L. (2) 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* (3) and Baruah *et al* (4) Nath *et al* (5) 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.* (6) 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. in form of Sinusitis, Rhinitis, Pharyngitis and Adenoiditis .The findings of the present study were more or less similar to the findings of these study. Thus it was observed that recurrence and persistence of infection in nasopharynx, sinuses and throat was a common cause of C.S.O.M..Palva (8) described the role of allergy in the etiology of C. S. O. M. Baruah *et al.* had observed nasal allergy in 25 percent cases of C.S.O.M. .According to present study 9% of total cases, while in safe variety it was 11.4% had associated nasal allergy which was again more or less in accordance of the findings of the these study. Self-prescription, overuse of drugs increases resistance risk . Development of drug resistance in bacteria is a tussle between science and nature. If a bacterium carries several resistance genes then it becomes multi-resistant, commonly known as a 'superbug'. It is generally observed that a larger duration of exposure to an antibiotic increases the risk of development of resistance. The wide-spread use of antibiotics has played an important role in evolution of the drug resistant bacterium. Apart from being used as medicine for humans, antibiotics are also used on farm animals either to treat diseases or for promoting growth, which increase the exposure of bacteria to the drug. Inappropriate treatment , overuse, self-prescription, failure in completing the prescribed course and misuse – like taking antibiotics to treat common colds, which is actually a viral infection – result in the undue exposure of bacteria to the drug facilitating the evolution of antibiotic-resistant population. It is also observed that the inappropriate disposal of pharmaceutical industry waste may result in environmental pollution with broad spectrum

antibiotics helping bacteria to develop resistance.

Conclusion: From above observations and discussions the authors reached to the conclusion that an awareness drive in the community, patients and medical practisners about the various aspects of the disease particularly early diagnosis and prompt, complete treatment which will be help full in complete cure of the disease and thus there will be a check on the prevention of recurrence and chronicity of the infection. Similarly there is an urgent need to conduct Continuous Medical Education (C.M.E) to all concerned on “rational use of drugs “to put a full stop on development of resistance against the drugs otherwise patients have to suffer a lot and the treatment will be beyond the reach of the most of the patients which ultimately harm all concerned irrespective of caste, creed, colour, religion, profession rich or poor.

References:

- [1] Gulati, J., Tandan, P.L., Waryan Singh, Bais, A.S.; Study of bacterial flora in chronic suppurative otitis media, *Ind. Jour. of otol.* 4: 198, 1969.
- [2] Chhangani, D.L. and Goyal O.P.; Bacteriological study in chronic suppurative otitis media *Ind. J. Otol.* Vol. XXVIII, No. 1; 41-45 March, 1967.
- [3] Tiwari, R.K. et. al.; Clinicobacteriological study of chronic suppurative otitis media. A Thesis for Degree of M.S. (Otol.) Medical College, Jabalpur, 1971.
- [4] Baruah, P.C., Agrawal, S.C. Arora, M.M.L. and Mehara, Y.N.; Bacteriological study in ch.suppurative otitis media *Ind. Jour. Otol XXIV*, no. 4 December, 1972.
- [5] Harendra Nath, Munjal, K.R.; Study of bacterial flora in chronic suppurative otitis media, Thesis for degree of M.S. (Otol) Medical College, Jabalpur, 1982.
- [6] Das, T. Singh, M.M., Taneja, G.M. Khanna S.D., Chadda, M.R.; Chronic suppurative otitis media, study of sensitivity to antibiotics of bacteria community found in chronic otitis media, *A.M.A. Arch Otol* 60: 158, 1954.
- [7] Riding, K. H., Blue stone, C.D., Michaels, R.H., Cantekin, E.I., Doyle, W.J. and Poziviak, C.S.; Microbiology of recurrent and chronic otitis media with effusion, *J. Paediat.* 93,739, 1978.
- [8] Palva, T., Friedunmann, I. and Palva, A.; Mastoiditis in children *J. Laryng.* 78:977,1964.
- [9] Gulati S.K.: Investigative profile in patients of chronic suppurative otitis media, *Indian Jr. of Otology*, 1997; Vol. 3, No. 2.
- [10] Kukreja S.N., Kohli G.S., Mohan C. Chandra R: *Indian Medical Gazette*; 1979; (XXIII C3); 95.
- [11] Lakshmipathi G. and Bhaskaran C.S.: 'Bacteriology of chronic suppurative otitis media', *J. Ind. Med. Assoc.*, 45: 436, 1965.
- [12] Mishra Anupam, Shukla Girish, Nag Devika Mishra Subhash Chandra: Bacteriological Study of chronic suppurative otitis media. Vol. 5, No. 2 (June 99), 87-91.
- [13] Nilekar S.L. Shegokar V.R.: 'Bacteriological evaluation of chronic suppurative otitis media in rural population of Ambaiogal. *Indian Medical Gazette* (Feb. 1996); p. 51-53.
- [14] Rajendra Kumar P.V.: *Indian J. Otolaryngology*, 1974, 26(3); 153.
- [15] Rama Rao M.V. and Jayakar P.A.: Bacteriological study of CSOM. *Jr. of Indian Medical Association*, 1980; 75: 30.
- [16] Rao B.N. and Reddy M.S.: Chronic suppurative otitis media — A prospective study, *Indian Journal of Otolaryngology and Head Neck Surgery* 1994, Vol. 3, No. 2.
- [17] Singh N and Bhaskar R.: 'Microbiological study of Otitis Media' *Ind. J. Otolaryngology*, 24:4, 161, 1972. 15.
- [18] Taneja M.K.: CSOM: A bacteriological study, *Indian Journal of Otology*, 1995; 1(2): 24-27. 16.
- [19] Tulsidas, Singh M, Taneja G.M., Khanna S.D., Chaddah M.R.: 'Chronic Suppurative Otitis Media'. *Arch. Otol.* 60: 158, 1954.