



OTITIS EXTERNA IN PATIENT ATTENDING ENT OPD IN A TERTIARY CARE CENTRE.

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ABSTRACT

Acute otitis externa is defined as diffuse inflammation of the external auditory canal. It is often associated with high humidity, warm temperatures, swimming, local trauma and use of hearing aid or hearing protectors.

METHODS: This is a prospective observational study conducted on 62 patients in ENT Department, SMGS Hospital GMC Jammu, over a period of 3 months from November 2019 to January 2020 after taking ethical clearance from the institutional ethical committee.

RESULTS: Out of the 62 patients, 37 patients (59.6%) were male and 25 patients (40.3%) were female. Maximum number of patients reported in the age group of 31-40 and 41-50 years i.e 19% in each group. 83% had unilateral otitis externa and 16% had bilateral disease. 56.4% of the patients presented with diffuse otitis externa, 38% with localised and 4.8% with necrotizing type of otitis externa.

CONCLUSION: Otitis externa is a common and preventable condition of the external auditory canal. It can be prevented by avoiding the precipitating factor and seeking treatment in the early stage of the disease.

KEYWORDS

Otitis Externa, External Auditory Canal, Diffuse, Necrotising

INTRODUCTION

Acute otitis externa is defined as diffuse inflammation of the external auditory canal. It is also known as swimmers ear as it is commonly associated with swimming. It is a common disease of children, adolescent and adults.¹ Annual incidence of acute otitis externa is approximately 1 percent² and a life time prevalence is estimated to be about 10 percent.³ Acute otitis externa usually presents as unilateral disease in 90% of the patients. It usually peaks in 7 to 12 years of the age, declines after 50 years of age. It is often associated with high humidity, warm temperatures, swimming, local trauma and use of hearing aid or hearing protectors.⁴ Otitis externa which last for more than 3 months or longer is called as chronic otitis externa resulting due to allergies, chronic dermatological conditions or inadequately treated acute otitis externa.⁵

Approximately 50% of bacterial causes involve *Pseudomonas aeruginosa* followed by *Staphylococcus aureus* and various aerobic and anaerobic bacterial species.^{6,7,8} The incidence of fungal infection is only 10% [9daneshard].⁹ Fungal pathogens, primarily those of the *Aspergillus* and *Candida* species, occur more often in tropical or sub tropical environment and in patients previously treated with antibiotics.^{10,11,12} Inflammatory skin disorders and allergic reactions may cause non infectious chronic otitis externa.⁵

MATERIAL AND METHODS

This is a prospective observational study conducted on 62 patients in ENT Deptt., SMGS Hospital GMC Jammu, over a period of 3 months from November 2019 to January 2020 after taking ethical clearance from the institutional ethical committee. All the patients attending the ENT OPD with otitis externa were clinically assessed after obtaining informed consent from the patients. Detailed history of the patients regarding age at the time of presentation, predisposing factors and clinical symptoms was taken. Detailed clinical examination of the patients was done for proper categorization i.e localized, diffuse and necrotizing otitis externa.

RESULTS

A total of 62 patients were examined over a period of 3 months. Of the 62 patients, 37 patients (59.6%) were male and 25 patients (40.3%) were female. Age group distribution of the patients is shown in table 1. Maximum number of patients reported in the age group of 31-40 and 41-50 years i.e 19% in each group. 83% had unilateral otitis externa and 16% had bilateral disease as shown in table 2. Predisposing factors were mechanical trauma (22%), with hair pin, keys, finger nail, match stick etc. as the major risk factors followed by low immunity (14.5%) due to diabetes mellitus, anaemia etc. and cotton bud trauma (12.9%) as shown in table 3. Patients presented with the chief complain of pain (83%) and swelling (70.9%) as shown in table 4. On clinical examination, 56.4% of the patients presented with diffuse otitis

externa, 38% with localised and 4.8% with necrotizing type of otitis externa (table 5).

Table 1 Age and sex distribution of patients.

Age group	Male	Female	Total pts in age group
0-10	6	4	10 (16%)
11-20	4	2	6 (9.6%)
21-30	4	6	10 (16%)
31-40	8	4	12 (19%)
41-50	8	4	12 (19%)
51-60	3	5	8 (12.9%)
>60 years	4	0	4 (6.4%)
	37(59.6%)	25(40.3%)	62

Table 2 Side of the ear affected.

Ear affectionation	No.of patients affected
Unilateral	52(83.8%)
Bilateral	10(16%)

Table 3 Predisposing factors for otitis externa.

Etiology	No. Of patients
Mechanical trauma	14 (22.5%)
Low immunity	9 (14.5%)
Ear bud trauma	8 (12.9%)
Otomycosis	10 (16%)
Wax	8 (12.9%)
Skin disease	5 (8%)
Idiopathic	8 (12.9%)

Table 4 Clinical symptoms with which patients presented.

Clinical symptoms	No.of patients
Pain	52(83.8%)
Swelling	44(70.9%)
Hearing loss	14(22.5%)
Discharge	22(35.4%)
Itching	24(38.7%)
Fullness of ears	26(41%)
Abcess	6(9.6%)

Table 5 Clinical characterization of Otitis externa in respective age groups.

Age group	Localized	Diffuse	Necrotizing	Total (%)
0-10	6	2		8(12.9%)

11-20	4	2		6(9.6%)
21-30	4	4		8(12.9%)
31-40	6	6		12(19.3%)
41-50	1	11	1	13(20.9%)
51-60	1	8		9(14.5%)
>60	2	2	2	6(9.6%)
Total	24(38.7%)	35(56.4%)	3(4.8%)	62

DISCUSSION

In the present study of 62 patients, 59.6% were male and 40.3% were females. Similarly Gokhle et al and Burgos et al reported 56.6% and 56% of the cases as males in their respective study groups.^{13,14} Otitis externa was seen in the middle age groups in our study. Gokhle et al also reported that middle age group patients were more commonly affected in their study.¹³ On the contrary a study reported that it is common in all age groups.¹⁵

83% patients in our study presented with unilateral ear disease. Unilateral otitis externa was reported more commonly than bilateral otitis externa in a study of 127 patients.¹⁶ Most common predisposing factor in our study was mechanical trauma (22.5%) by hair pin, keys, finger nail, matchstick for self cleansing. Some of other factors responsible are use of ear buds in hearing aid users, wax and subjects with low immunity. These factors usually work by disrupting the cerumen and damaging the epithelium of the external auditory canal. This results in increase in the pH and a favourable environment for bacterial growth. Invasive organism of the skin gain access to the deeper skin causing local tissue necrosis.

Otitis externa is a clinical entity and is diagnosed based on symptoms and signs of inflammation in the external auditory canal. Pain (83.8%) was the most common complaint in our study group. It ranged from discomfort to severe ear-ache. Similarly, Gokhle et al reported pain as the common complain encountered in 91% of the patients.¹³ A similar study also reported pain (97.2%) as the most common symptom.¹⁷

Otitis externa is commonly seen in hot and humid climate presenting with itching and discomfort progressing to severe pain. Necrotising otitis externa is rare disease usually seen in immunocompromised subject as in elderly diabetic. Infection of the external auditory canal spread to the underlying soft tissues and bone. It cause severe pain and can lead to the skull base osteomyelitis and cranial nerve palsy.¹⁸ In our study, most of the patients presented with diffuse otitis externa (56.4%). Similarly, a study of 1200 patients reported predominance of diffuse otitis externa (87%) with least cases of necrotizing otitis externa.¹⁹

CONCLUSION

Otitis externa is a common and preventable condition of the external auditory canal. Diffuse form of acute otitis externa was commonly seen in the present study. It can be prevented by avoiding the precipitating factor and seeking treatment in the early stage of the disease.

CONFLICT OF INTEREST: Nil

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ETHICAL CLEARNACE:

Approved by Institutional Ethical Committee

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