



A CLINICAL STUDY ON INCIDENCE AND FREQUENCY OF EXTRA CRANIAL COMPLICATIONS OF CHRONIC SUPPURATIVE OTITIS MEDIA IN DIABETES PATIENTS:

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ABSTRACT

Chronic Suppurative Otitis media has been traditionally described as a chronic inflammation of part or all of the tympanomastoid compartment comprising of eustachian tube, the tympanic cavity, the mastoid antrum and all the pneumatized spaces of temporal bone associated with perforation of the tympanic membrane and otorrhoea. The proximity of the middle ear cleft, the mastoid air cells to temporal and the intracranial compartments, places structures located in these areas at increased risk of infectious complications. The study is intended to know the incidence and frequency of extra-cranial complications in Diabetes Mellitus.

KEYWORDS

CSOM, Diabetes Mellitus, Complications, ENT, Extra-Cranial.

Introduction:

Chronic Suppurative Otitis media has been traditionally described as a chronic inflammation of part or all of the tympanomastoid compartment comprising of eustachian tube, the tympanic cavity, the mastoid antrum and all the pneumatized spaces of temporal bone associated with perforation of the tympanic membrane and otorrhoea. The proximity of the middle ear cleft, the mastoid air cells to temporal and the intracranial compartments, places structures located in these areas at increased risk of infectious complications.¹

The development of complications in Chronic Suppurative Otitis Media is attributed to the bone eroding properties of Cholesteatoma and granulation tissue, normal anatomical openings and natural dehiscences in temporal bone, virulence of organisms, biofilm formation, patient related factors like age, immune status e.t.c. The development and appropriate use of antibiotics have led to a decrease in potentially devastating complications. However, they continue to occur, and clinical vigilance is required for early detection and treatment. Furthermore, with the continued development of multi-drug resistant pathogens, these complications may again become more prevalent as our current antibiotics become less effective.² Complications of chronic suppurative otitis media can be lethal if they are not identified and treated properly. The present clinical study highlights on the various clinical presentations of these complications, the importance of early clinical detection and the appropriate treatment modalities. The study is intended to know the incidence and frequency of extra-cranial complications in Diabetes Mellitus.

Aims and Objectives:

To know the incidence and frequency of extra-cranial complications in Diabetes Mellitus.

Materials and Methods:

One hundred patients were selected who were diabetics and this was taken in as the sample size.

This study was done in the Department of ENT, Travancore Medical College, Kollam

This study was done from May 2015 to April 2017.

Detailed clinical history was taken and the clinical examination was conducted.

The incidence and significance of the complications and detailed type of complication was noted and reported.

Results:

Table 1: Mean age of the Patients

Patients	Mean age	Standard Deviation
100	37.11	9.02

Table 2: Total Number of Patients who had fungal infection

Patients	Incidence	Percentage
100	21	40%

Table 3: Table of Significance

Patients	X-Value	P-Value (<0.05)
21	0.276	0.073

It is not statistically not significant.

Table 4: Complications

Complications	Frequency
Petrositis	9
Facialnerve paralysis	4
Post Aural Fistula	3
Post Aural Abscess	21
Mastoiditis	7

Discussion:

Complications of chronic Suppurative Otitis media has decreased worldwide with the exception of developing world, where prevalence is still high 6.7%-7.6%. Cholesteatoma due to its properties of eating away bone can erode and damage dura, sinus, seventhnerve and bony labyrinth if not checked in time so there is a need for early diagnosis and early intervention. A prospective clinical study done on 60 patients with extracranial complications of chronic Suppurative Otitis media. The complications were seen most commonly in first three decades of life in the present study as well in other Studies like^{3,24} Males had higher preponderance for complications, when compared to females. Prominence of males. Some reported predominance of females^{5,6,7}. However all the authors supported our view that the complications are common during the second and third decades of life, probably due to more active life and longer duration of cholesteatoma for which it remains active insitu before culminating into complications or more aggressiveness of cholesteatoma in younger age. The complications were commonly seen in low and middle socioeconomic groups in our study. Diabetes mellitus (DM) is one of the major health problem with increasing numbers. Diabetes prevalence among all age groups globally estimates to about 2.8% in the year 2000 (171 million) and is estimated to reach up to 4.4% by the year 2030 (366 million). The gravity of which is going to be very high in developing and underdeveloped countries, where the prevalence will rise from 4.2% to 5.6%. Skin being the largest organ of the body also gets affected by both acute metabolic derangements as well as chronic degenerative complication of DM. Multitude of factors are involved in manifestation of dermatological signs of DM. Derangement in carbohydrate metabolism, alters metabolic pathways in the patients leading to manifestation of the disease in various forms involving all the systems of the body. The incidence of complications is more commonly seen than the manifestations of the disease in other systems of the body.

Conclusion:

The complications are statistically not significant in Diabetic Patients.

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