

Evaluation of External Ear Dermatological Conditions with the Use of Cotton Buds

External Ear
Dermatological
Conditions with
Cotton Buds

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ABSTRACT

Objective: The objective of this study to external ear dermatological conditions with the Use of Cotton Buds in Mirpur AJK.

Study Design: Cross-sectional study

Place and Duration of Study: This study was conducted at the department ENT Mohtarma Benazir Bhutto Shaheed Medical College Mirpur AJK and Department of Dermatology Mohi-ud-Din Medical College, Mirpur, AJK from March 2018 to July 2019.

Materials and Methods: In this study we selected all those patients which use cotton buds for the cleaning buds and also having dermatological diseases of external ear were including. Those person having not external dermatological diseases of ear are excluded. Those patients having nasal diseases are excluded from the study and also having middle ear diseases is excluded.

Results: 209 person using cotton buds for cleaning of ear to remove ear wax and mass in which 174 patients with Dermatological diseases of external disease of external ear (cases) and 35 Non- Dermatological diseases of external disease of external ear (89.22 %) were not aware of injurious effects of use of cotton bud to clean ear. Only 10.53% persons have awareness. Different parentage of external ear infection and dermatological diseases found Neurodermatitis (35.16%) ,Otitis externa (28.57%), Contact dermatitis(25.27%), Wax impaction (7.69%)and Tympanic membrane perforation (3.29%).

Conclusion: There is close association of external ear cleaning with demagogical disease when using cotton buds. It is bad and dangerous habit so avoid this.

Key Words: External Ear, Dermatological conditions, Cotton buds

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INTRODUCTION

Cleaning of the ear a major habit of the people with cotton buds and it is self-practice of the people. Otherwise ENT specialist have practice to remove the wax of the people ear easily without the dermatological injury. Cotton tip swabs injure many people ears.¹ Cotton-tipped swab is developed by Leo Gerstenzang that he considered it safer for the people.² In the case of itching in the ear cotton buds are used to remove wax and clean the ears.

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We observed in the ENT practice that most of the people in removing of the wax from ear and cleaning they used cotton bud which caused to injure the ear and most of cases damage the ear drum and other injuries.^{3,4} The tympanic membrane perforation was first time observed in 1972 and some other medical reports were concern cerumen impaction and otitis externa and other type of dermal issues.² Contact dermatitis and neurodermatitis are the major concern in in the population for using the cotton buds for cleaning the external ear so it means that cleaning of the ear with a cotton buds a dangerous habit of the people and having strong association. We also observed some clinical issues with concern of cleaning of the ear with cotton buds such as perichondritis, rupture of tympanic membrane and otitis externa acute.⁵⁻⁸

The objective of study to determine external ear dermatological condition with using cotton bud for cleaning of ear for removing wax.

MATERIALS AND METHODS

This study was conducted in the department ENT and Biochemistry Department of Mohtarma Benazir Bhutto Shaheed Medical College Mirpur AJK and Dermatology Department of Mohd-ud-din Medical

College, Mirpur, AJK from March 2018 to July 2019. In this study we selected all those patients which use cotton buds for the cleaning buds and also having dermatological diseases of external ear were including. Those person having not external dermatological diseases of ear are excluded. Those patients having nasal diseases are excluded from the study and also having middle ear diseases is excluded.

RESULTS

Total number of subjects in this study was 300 with the mean age 40.4 ± 10.2 years (Out of them 150 were male and 150 were female. 200 patients were cases and 100 were the controls. 209 person using cotton buds for cleaning of ear to remove ear wax and mass in which 174 patients with Dermatological diseases of external disease of external ear (cases) and 35 Non-Dermatological diseases of external disease of external ear 89.22 %)were not aware of injurious effects of use of cotton bud to clean ear.

Table No.1: Participant characteristics

	Dermatological diseases of external disease of external ear (cases) (n=200)	No Dermatological diseases of external disease of external ear
Age (years)	40.4 ± 10.2	40.7 ± 10.3
Male /Female (%)	100/100	50/50
Body weight (Kg)	69.9 ± 10.8	68.3 ± 11.2
BMI (kg/m ²)	24.8 ± 2.6	24.2 ± 2.5

Table No.2: Risk of use of cotton buds of external ear

Dermatological diseases of external disease of external ear (cases) (n=200)	No Dermatological diseases of external disease of external ear Control (n=100)
Cotton bud users(Exposed)	
174	35
Cotton buds non-users(Non-exposed)	
26	65
Total	
200	100

Table No.3: Association between awareness about the effects of cotton bud and habit of cotton bud using (n=209)

Awareness about cotton bud use	Using in both ears	Using in one ear
Without awareness	141 (67.46%)	46 (22.00%)
With awareness	10 (4.78%)	12 (5.75%)
Total	151 (72.25%)	58 (27.75%)

Table No.4: Types of diseases of external ear of the cases (n=91)

Diseases	Number	%age
Neurodermatitis	32	35.16
Otitis externa	26	28.57
Contact dermatitis	23	25.27
Wax impaction	7	7.69
Tympanic membrane perforation	3	3.29

Only 10.53% persons have awareness. Different parentage of external ear infection and dermatological diseases found Neurodermatitis (35.16%), Otitis externa (28.57%), Contact dermatitis (25.27%), Wax impaction (7.69%) and Tympanic membrane perforation (3.29%).

DISCUSSION

External auditory meatus (EAM) skin inflammation is Otitis externa. It is including(Visible ear ,eardrum without extending to the middle).⁹Most common of the ear infection is acute bacterial infection and also other infection and factors are involved (dermatological disease, trauma and allergy).¹⁰ Common symptoms and signs of ear infection are (ear canal edema, hearing loss, tenderness of the tragus and pinna, erythema, otalgia, otorrhea, aural fullness and itching).¹¹ In this study we selected all those patients which use cotton buds for the cleaning buds and also having dermatological diseases of external ear were including. Those person having not external dermatological diseases of ear are excluded. Those patients having nasal diseases are excluded from the study and also having middle ear diseases is excluded. Cleaning of the ear a major habit of the people with cotton buds and it is self-practice of the people. Otherwise ENT specialist have practice to remove the wax of the people ear easily without the dermatological injury. Cotton tip swabs injure many people ears . Cotton-tipped swab is developed by Leo Gerstenzang that he considered it safer for the people. In the case of itching in the ear cotton buds are used to remove wax and clean the ears. We observed in the ENT practice that most of the people in removing of the wax from ear and cleaning they used cotton bud which caused to injure the ear and most of cases damage the ear drum and other injuries. The tympanic membrane perforation was first time observed in 1972 and some other medical reports were concern cerumen impaction and otitis externa and other type of dermal issues .Contact dermatitis and neurodermatitis are the major concern in in the population for using the cotton buds for cleaning the external ear so it means that cleaning of the ear with a cotton buds a dangerous habit of the people and having strong association. Total number of subjects in this study was 300 with the mean age $40.4 + 10.2$ years (Out of them 150 were male and 150 were female. 200 patients were cases and 100 were the controls. 209 person using cotton buds for cleaning of ear to remove ear wax and mass in which 174 patients with Dermatological diseases of external disease of external ear (cases) and 35 Non- Dermatological diseases of external disease of external ear 89.22 %)

were not aware of injurious effects of use of cotton bud to clean ear. Only 10.53% persons have awareness. Different parentage of external ear infection and dermatological diseases found Neurodermatitis (35.16%), Otitis externa (28.5%7), Contact dermatitis (25.27%), Wax impaction (7.69%) and Tympanic membrane perforation (3.29%). We also observed some clinical issues with concern of cleaning of the ear with cotton buds such as perichondritis ,rupture of tympanic membrane and otitis externa acute Some other studies showed that cleaning of the ear with cotton bud a danger habit and it caused some other infection of the ear and other clinically issues of the ear such as (tympanic membrane rupture, neurodermatitis, wax impaction, perichondritis and contact dermatitis).^{12, 13} The risk of injury of the ear with using of cotton buds to clean the ear from wax more in dermatological diseases of external ear and 12 times more are observed in the people. In the study of Afolabiet *al.*, he observed that when a person cleaning the ear with cotton buds to remove the wax, many of the people caused injure the ear hediscouraged to use the cotton buds to clean the ear. There is close association of cleaning of ear with cotton bud and ear diseases and more risk are present in case of ear diseases and it is a bad habit.^{15,16} There is also more risk available for those patients that have dermatological issue and diseases of the ear and they are more susceptible and it dangerous for ear in dermal diseases, we should educate the people regarding cleaning the ear with cotton bud to remove the wax that it is bad and dangerous habit for them so ovoid this type mechanism.

CONCLUSION

There is close association of external ear cleaning with demagogical disease when using cotton buds. It is bad and dangerous habit so avoid this.

Author's Contribution:

Concept & Design of Study: Faisal Bashir
 Drafting: Ejaz Ahmed, Syeda Midhat Fatima
 Data Analysis: Asnad
 Revisiting Critically: Faisal Bashir, Ejaz Ahmed
 Final Approval of version: Faisal Bashir

Conflict of Interest: The study has no conflict of interest to declare by any author.

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