

Removal of Ear Wax by Suction versus Syringing

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Abstract

A prospective comparative study carried out on fifty patients complaining from bilateral impacted ear wax, to compare the efficiency of suction with that of syringing during removal of wax.

In each patient right ear was cleaned by suction and left ear by syringing.

*We concluded from the study that suction in comparison with syringing is :
more effective in cleaning the ear (80%).*

Less causing injection of the drumhead (4%).

more preferable by the patient (92%).

Keywords: Removal of Wax.

Introduction

Combined secretions of cerumenous glands and sebaceous glands in the cartilaginous portions of the external auditory meatus will form wax. Its quantity varies greatly from one individual to another^(13,14). The consistency of the wax is determined by the proportions in the mixture, normally its expelled from the canal in flakes aided by the movements of the jaw⁽⁸⁾; it has an acidic PH, its bacterostatic and fungi static⁽⁴⁾, it lubricate the skin of the ear and entrap foreign material⁽⁶⁾.

Some patients have overactive glands that produce excessive accumulation of wax in the ear canal, which might be aggravated by

abnormally tortuous and narrow canals⁽⁶⁾. Stiff hair, desquamation, exostosis and other stenosing condition might participate in retention of wax causing deafness (especially when occlusion of the canal is complete), tinnitus, reflex cough, earache and vertigo^(7,8). The external canal shows a dark brown plug filling the canal obscuring the view of tympanic membrane⁽⁹⁾.

Treatment of impacted wax is to remove it either by syringing or ring probe or suction⁽⁸⁾. Preliminary softening by the use of suitable oily drops such as saturated solution of bicarbonate of soda or olive oil is mandatory⁽²⁾.

Ear syringing is a procedure that almost any doctor or nurse is expected to carry out (5), it is a common procedure approximately 40 000 ears syringed each week in united kingdom (11), but its not necessarily a simple operation (2). Its important to realize that ear syringing is one of the commonest sources of medical negligence litigation in otolaryngology (3), since too vigorous stream of water directed toward an atrophic drumhead may cause perforation (1), that is why we tried in this study to elucidate the efficiency of suction in comparison with that of syringing during removal of wax, as well as, to recognize some characters of symptomatic wax.

, complaining from bilateral symptomatic wax, in consultation department of otolaryngology in Sulaimani Governorate , from October 1999 to March 2000. Including all age groups and both sexes. Those cases who have previous history of ear problems (e. g. discharge) as well as unilateral cases were excluded.

For each patient information about age, sex, occupation & presentation were recorded. Wax were softened in both ears by 5% sodium bicarbonate in glycerin for 48 hours followed by syringing of the left ear using tap water at body temperature, and suction clearance of the right ear by using medical sucker of maximum vacuum (- 760 Kpa) through two small angulated suction tip of 2mm. & 3mm. Caliber aided by suitable size of aural speculum and head light.

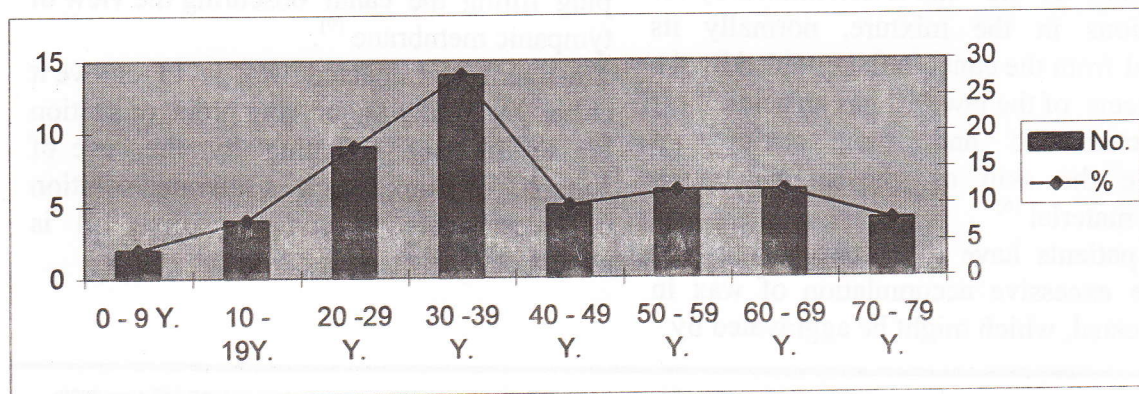
Materials & Methods

This prospective comparative study was carried out on fifty patients,

Results

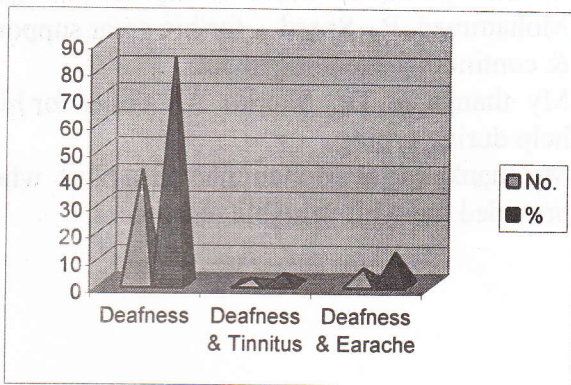
PARAMETERS	RIGHT EARS cleaned by suction	LEFT EARS cleaned by syringing
Cleaned at first trial	40	34
Cleaned at second trial	10	16
Patients preference	46	4
Time needed for the procedure	1 – 2 minutes	2 – 5 minutes
Redness of tympanic membrane	2	43

(Table 1) Shows comparison between suction & syringing in different aspects during removal of wax.



(Figure 1) Age distribution of symptomatic The study revealed that the peak incidence of symptomatic wax is in the third & fourth decades of life.

(Figure 2) Sex distribution of symptomatic wax



(Figure 3) Distribution of symptoms caused by impacted wax.

Occupation	No.
Worker	16
Farmer	9
Gunman	7
Student	6
House wife	5
Teacher	4
Driver	2
Doctor	1
Total	50

(Table 2) Occupation distribution in symptomatic wax.

Discussion

The study elucidated (Table 1) that suction is more effective than syringing in removing ear wax as :1.A high percentage of right ears (i.e. by suction) were cleaned at first trial (80%).

2. Regarding the procedures , great majority of patients (92%) prefer suction because they think that a too vigorous stream of water pushed toward tympanic membrane might be harmful.

3.The time needed for the procedure is less in suction than syringing.

4.Otoscopy, after both procedures revealed that in great majority of cases (86%) hyperemia and congestion of their left tympanic membranes were observed , while these finding were only (4%) in right ears , this results is in agreement with other study in which stated that : in practically all cases examination of the drum membrane after syringing will show a degree of injection ,this found chiefly round the short process of the malleus and along the handle ⁽²⁾.

It is clear from the study that in about one third of cases (32%) syringing failed to remove wax at first trial , this result is similar to other study in which it has been stated that : failure to remove wax , as well as , to improve the hearing despite a plug of wax appearing in the dish were encountered which might be due to a small remaining plug⁽¹²⁾.

Our study showed that the main presentation of symptomatic wax is deafness (Fig. 3) this results is expected and similar to other study which mentioned that : excess wax may cause variety of symptoms ,the chief of which is hearing loss ⁽²⁾.

It is evident from the study that the prevalence of symptomatic wax is more in male worker in the second and third decades of life (Fig. 1,2 & Table 2)..

The possible explanation of this, it is probably due to that these groups are more active and exposing to dusty environment, which lead to excessive drying and impaction.

Finally that fact that should be mentioned is that suction can only be done safely by otologist while syringing may be carried out by a trained personnel after the presence of was has been confirmed ⁽¹⁰⁾.

Conclusion

In spite of the fact that suction can only be done safely by otologist , and even in the absence of previous history of ear problems in which syringing is not indicated , we concluded from this study that : Suction is more effective , safer , and more preferable by patient than syringing during removal of wax .

Acknowledgement

I owe particular debts to my brother Dr. Mohammad R. Saeed for his great support & continuous encouragement.

My thanks to Dr. Sherko Ali Omer for his help during typing .

My thanks to Dr. Mohammad Jaza Nuri who provided me with valuable references.

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لاپردنى مۆمى گۆي بە ھۆي ھەلمزىنى كارەبايى بەرامبەر شوشتنى گۆي بە ھۆي سرنجەوھ

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پوختە

ئەم توپۇنەوھىيە ، لىكولىنەوھىيەكى مەيدانى بەراوردە . لە پەنجا دوخى نەخوشى دەكۆلپتەوھىيە ، دەربارەي پىپوونى ھەردووكەنالى گۆي ي دەروھ بە ماددەي مۆم (شمع) ، ئەنجام دراوھ لە كلينىكى راولزكارى لووت وقوپك و گۆي لە پارىزگاي سۇلەيمانى لە مانكى تشرىنى بەكەم ۱۹۹۹ تا نازارى ۲۰۰۰ .

بۇ دەرخستنى كارىگەرى پزىگاي ھەلمزىنى كارەبايى بە بەراورد لە گەل شوشتنى گۆي بەھوى سرنجەوھ لە كاتى پاككردنەوھىيە گۆي دا بەپىي زانباريمان ئەم توپۇنەوھىيە بەكەم لىكولىنەوھىيە لەم بوارەدا لە پارىزگاي سۇلەيمانى كرابى .

دەتوانىن پوختەي ئەنجامەكانى توپۇنەوھىيەكە بەم شىوھىيە بخەينە پوو :-

پزىگاي ھەلمزىن بە بەراورد لە گەل شوشتن :

پتر كارىگەرە لە پاككردنەوھىيە گۆي دا (۸۰٪) .

كەمتر نازار بە پەردەي گۆي دەگەپەنپت (۴٪) .

پەسەند ترە لە لايەن نەخۆشەكانەوھىيە (۹۲٪) .

رفع شمع الاذن بطريقة السحب الكهربائي مقابل طريقة غسل الاذن بواسطة السرنج

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الخلاصة

ان هذه الدراسة، هي دراسة ميدانية مقارنة ل (۵۰) حالة مرضية يعانون من تجمع شمعي مغروز في الاذن الخارجي للجانبين ، اجريت في استشارية الانف والاذن والحنجرة في محافظة السليمانية من تشرين الثاني ۱۹۹۹ - اذار ۲۰۰۰ .

لاظهار مدى فعالية طريقة السحب بالمقارنة مع غسل الاذن بواسطة السرنج عند تنظيف الاذن الخارجى .

حسب معلوماتنا فان هذه الدراسة هي الدراسة الاولى التى انجزت في محافظة السليمانية في هذا المجال .

يمكن تلخيص اهم النتائج التى توصلت اليها الدراسة على النحو الاتى :-

ان طريقة السحب بالمقارنة مع غسل الاذن هي :-

۱- اكثر فعالية من حيث تنظيف قناة الاذن الخارجى (۸۰٪) .

۲- اقل تاثير على طبلة الاذن (۴٪) .

۳- اكثر تفضيلا من قبل المرضى (۹۲٪) .