



Ear candling: Study of 22 cases and review of the literatures

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Received: 18-May-2022, Manuscript No. GJMMS-22-65932; **Editorial assigned:** 20-May-2022, Pre-QC No. GJMMS-22-65932(PQ); **Reviewed:** 07-Jun-2022, QC No. GJMMS-22-65932; **Revised:** 17-Jun-2022, Manuscript No. GJMMS-22-65932(R); **Published:** 27-Jun-2022, DOI:10.15651/2449-1888.22.10.170.

ABSTRACT

Objective: To assess the outcome of Ear candling practiced by Traditional healer practitioner as an alternative method to clean the cerumen, cure of tinnitus, hearing impairment and other ear related complaints of vertigo headache etc.

Materials and methods: We studied 22 cases of ear candling attended the ENT Department of Khulna Medical College Hospital, Bangladesh between 1st January 2019 to 31st December 2019. The patient with the history of chronic ear discharge and hearing impairment were excluded from enrolment. After taking detail history we had examined the ear under microscope and found hardened candle wax in the external auditory canal and on the tympanic membrane. We removed the candle wax and cerumen from the ear canal meticulously and assessed the tympanic membrane. Hearing tests were done by 512 Hz tuning fork. Patients were followed up after 2 weeks. Hearing tests were repeated and in addition, pure tone audiometry and impedance audiometry were done.

Results: On examination of ear under microscope we found signs of scalding and dried up candle wax partially or completely occluding the external auditory canal. In a few cases we found candle wax pasted on the tympanic membrane. None of the patients were benefitted from the procedure. Additionally, the procedure caused various complications.

Conclusion: In our study we found nothing beneficial in favour of ear candling rather it caused complications of burn and worsening of tinnitus, vertigo and hearing loss. We do not recommend ear candling and warn people to be aware of the danger of ear candling.

Keywords: Ear wax, Cerumen, Tympanic membrane, Ear candling, Candle wax

INTRODUCTION

External auditory canal contains ceruminous glands, sebaceous glands, sweat glands and hairs in its outer one third. The cerumen commonly known as ear wax is the mixture of secretions of these glands mixed with dust particles. This is not a disease but when it is accumulated and impacted then it may be regarded as

a clinical condition. Due to movement of the jaw ear wax expelled out spontaneously in most human beings. Attempts of cleaning ear by own self or by others may cause injury to external auditory canal and push it more deeply creating problems. Then it requires consultation of an ear nose throat specialist.

Ear candling is an alternative method being practiced

almost all over the globe to remove ear wax and cure of ear related complaints. People are being impressed by online publicity by vendors. Ear candles are manufactured and marketed online worldwide.

There are traditional healer professionals moving in public places with their kit and head light who impressed people to clean their ears (Figure 1). Ear cleaning is pleasant as external ear is supplied by a branch of Vagus (Xth) nerve stimulation of which gives sensation of tranquillity.



Figure 1: Traditional ear cleaning in a park.

The ear candling is popularly known as coning or thermal auricular therapy for ear problems particularly for removal of cerumen (Nahid K, 2021). The procedure is accomplished by placing the taper end of a cone made up of fabrics impregnated with beeswax into ear canal and lighting up the other wide end. These cones are commercially available and advertised in media and online sites. One wholesale ear candle distributor in Seattle sold around 1000 candles per week in 1996 (Rafferty J, 2007). The Google scholar and YouTube search provides many references of 'ear candling' or 'thermo auricular therapy' or 'ear coning' (Seely DR, 1996). Therefore, it indicates that the prevalence of ear candling is quite high. It is claimed that cerumen is drawn out by creating negative pressure in the external auditory canal (Dohar JE, 2003). This statement is not scientifically proved rather it causes complications (Dohar JE, 2003 and Zackaria M, 2009).

MATERIALS AND METHODS

The study was conducted in the Department of ENT & Head Neck Surgery, Khulna Medical College Hospital and Khulna, Bangladesh between 1st January to 31st December 2019.

Study type

A tertiary level Hospital based study.

Study design

A retrospective observational study.

Subjects and sample size

The study included 22 patients who had fulfilled the inclusion criteria.

Inclusion criteria: Patients having definite history of ear candling for cerumen removal for complaints of ear blockage, tinnitus and hearing impairment.

Exclusion criteria: Definite history chronic ear discharge, hearing impairment and history of treatment for chronic suppurative otitis media.

We have collected data from the registry of ENT & Head Neck Surgery Department of Khulna Medical College Hospital. We have retrospectively studied patients who had attended the ENT & Head Neck Surgery Department. Both male and female patients of different ages were included in this study. These patients had undergone ear candling by traditional healer practitioner known as quacks for cerumen removal, cure of tinnitus and hearing impairment.

All these patients complained of worsening of ear blockage, tinnitus and hearing impairment and in addition vertigo and burning pain immediately after the procedure. We had examined all these patients under microscope and found dried up candle wax that partially or completely occluded the external auditory canal (Figures 2 and 3). In some cases, a thin layer of candle wax found pasted on the tympanic membrane (Figure 4). We had removed the candle wax meticulously and examined the external auditory canal and tympanic membrane. A few patients needed general anesthesia to remove the pasted candle wax from the tympanic membrane. After removal of candle wax external auditory canal and tympanic membrane were examined and findings were recorded. Hearing tests were done by 512 Hz tuning fork. Patients were followed up after 2 weeks and again under microscope external auditory canal and tympanic membrane were examined. Hearing tests were also repeated by 512 Hz tuning fork.

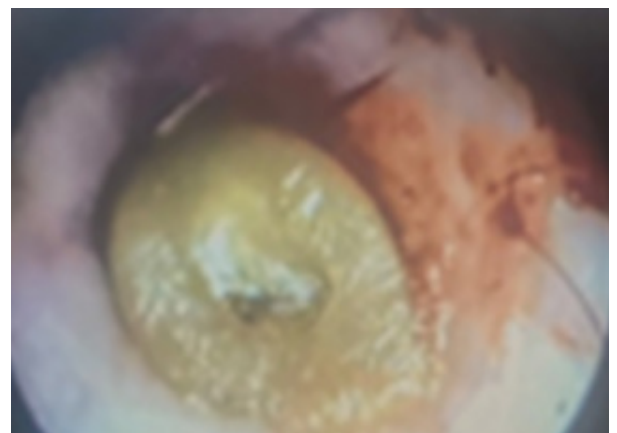


Figure 2: Candle wax completely occluded the external ear canal of a patient.

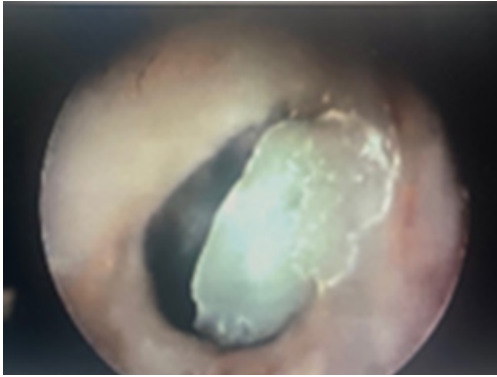


Figure 3: Candle wax partially occluded ear canal of a patient.



Figure 4: Candle wax pasted on tympanic membrane of a patient.

RESULTS

The total number of patients was 22, male 8 and female 14 ratio being 1:1.75. Age ranged from 15-50 years with a mean of 28.5 years. Out of these patients 6 (27.27%) were students from School, College, and University level, 3 (13.63%) were School and College teachers, 3 (13.63%) were businessman and 10 (45.45%) were ordinary people in our study group with predominance of female patients (63.63%). This patient group had complaints of ear blockage, tinnitus and hearing loss. They also complained of ear wax impaction which they called 'Sannik' in Bangladesh. They were impressed by the description of fabulous benefit by the so-called traditional healing practitioner known as 'quack doctor' and viewing internet and Ear candling video in YouTube. All patients experienced pain, burning and sudden blockage of ear immediately after the procedure. None subjected their other ear to candling. Demographic profile of these 22 patients were summarised in Table 1.

Table 1: Demographic profile of patients

Parameter	Value
Patient (n)	22
Age range	15-50 yrs.
Mean age	28.5 yrs.

Gender (n, %)	
Male	08 (36.36%)
Female	14 (63.63%)
Male: Female	1:1.75
Profession	
Students	6 (27.27%)
Teachers	3 (13.63%)
Businessman	3 (13.63%)
Others	10 (45.45%)

n=Number, yrs=Years

After successful removal of candle wax, we examined the ear and found burn of ear canal in 8 patients (36.36%), burn of ear canal and tympanic membrane 5 patients (22.72%), burn and perforation of tympanic membrane in 4 patients (18.18%) and only scalding of tympanic membrane only in 5 patients (22.72%). 12 patients (54.54%) had associated injury to external auditory canal injury due to attempt of removal elsewhere. 3 patients (13.63%) had sensory neural hearing loss, 5 (22.72%) had mixed hearing loss and 11(50%) had conductive hearing loss on Tuning fork test. 3 patients had only cerumen in external auditory canal. Clinical findings after removal of candle wax are summarised in Table 2.

Table 2: Findings after ear candling.

Patient	Number of patients (%)
Burn EAC	8(36.36%)
Burn EAC and TM	5(22.72%)
Burn and perforation TM	4(18.18%)
Burn TM	5(22.72%)
Injury EAC	12(54.54%)
SND	3(13.63%)
SND+CD	5(22.72%)
CD	11(50%)
Normal hearing	3(13.63%)

Note: EAC: External Auditory Canal; TM: Tympanic Membrane; SND: Sensory Neural Deafness; CD: Conductive Deafness; n: Number.

DISCUSSION

We searched in Google Scholar and found hundreds of publications on ear candling. Ancient People of India, Tibet, China, Egypt, America, used to practice ear candling for various ear complaints (Dryer L, 2005). Ear candling dated back to 2500 BC in ancient Egypt (Ashby C). Ear candling was regarded as spiritual method for cleaning of mind and sense and used to be practiced before any rituals in some cultures (Jennifer H, 2018 and Heather SL, 2005). Ear candling was practiced in Ancient Greek for spiritual purposes and was popularized by Hopi Indians Tribes (Peaceful People) of South-West America (Kaushall PH, 2000).

“The Practical Guide to Ear Candling” described a list of materials required for ear candling (Sheppard R, 2002). Ear candles are made up of fabrics impregnated with beeswax and shaped into a hollow cone. Sometimes different herbs are mixed with beeswax. Now a days ear candles are manufactured commercially and available globally at Amazon, eBay, Walmart and many more online shops (Figure 5).



Figure 5: Commercial ear candles.

The manufacturing and marketing had been declared illegal by FDA in November 1998 as they are considered medical device with no proven benefit (FDA Import Alert 1998). FDA also issued warning letters to some ear candle importing and manufacturing companies regarding their activities (Gill LJ, 2010). Despite these precautions, ear candles are still widely available in online shops and at health-food stores of USA, UK, Canada, Australia, and many other developed European countries. Even some Institutes used to conduct conferences regarding this age-old treatment and offer certificate courses leading to “certification as an ear-cologist” (Gill LJ, 1998).

In our study we revealed that candling practitioners made the ear candle at home by soaking a piece of paper into melted beeswax. The commercially available ear candles are provided with collecting disc that can prevent scalding of face around the ear under treatment.

The patient laid down on his side with the ear to be treated upward. The tapering end of the ear candle cone is placed into ear canal and the wide upper end of the candle ignited. The area of face and head covered by towels to avoid scalding by melted wax. However, in our patient’s variable amount of melted wax spilled down into ear canal. Patients experienced pain of scalding and sudden intense blockage of ear canal. The burnt-out ashes of the candle were shown to pa-

tient and explained that the ear had been cleaned of so called “Sannik”.

Alleged benefits of ear candling were removal of wax, cure of chronic headache tinnitus vertigo and hearing impairment (Seely DR, 1996). But none of our patient got any benefit rather it caused complications. Some cases needed general anesthesia for removal of candle wax where a thin layer of melted wax plastered on the tympanic membrane. There is no medicinal solvent to soften the plastered wax. It turned into powder granules while attempting for removal by fine aural foreign body hook.

The popularity of alternative medicine is increasing globally even in developed world of Europe, America, Australia, and Canada and Southeast Asia. Our country is not the exception. Till now ear candles are not manufactured commercially and not available in our market.

There are no scientific articles on this topic that suggest any benefit of ear candling (Ernst E, 2004). We also found no benefit in our patients. Ear candles are not approved by FDA. The complications are scalding of external auditory canal, auricle, and its surroundings, complete or partial occlusion of external auditory canal, scalding of tympanic membrane and perforation, temporary or permanent hearing loss etc., (Tan SN, 2016).

Our patients were impressed by the professional quacks and viewing the advertisement on the internet and viewing YouTube videos of ear candling (Figure 6).



Figure 6: Lucrative commercial ear candle.

CONCLUSION

Although there are no scientific data in favour of ear candling, the procedure is gaining popularity all over the world due to publicity. The ear candles are manufactured commercially and available in the market in a presentable package. The cost of one piece of ear candle is US \$ 2-3. So, the commercial interest is prevailing over scientific facts. We should make people aware of the fabricated propaganda of the procedure and associated complications of ear candling. We do recommend ban on its production, distribution, and advertisement.

SPONSOR-NONE

The approval of institutional ethical committee was obtained for this study.

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