What is the best treatment for impacted cerumen?

EVIDENCE-BASED ANSWER

Docusate sodium given 15 minutes before irrigation is most effective for facilitating cerumen removal during a single office visit. (Grade of recommendation: B, based on head-to-head trials that lacked irrigation-only arms.) Treatment with 5% urea hydrogen peroxide in glycerol is most effective for facilitating cerumen removal between office visits, reducing the amount of irrigation needed. (Grade of recommendation: B-, based on lack of rigorous randomization, lack of definition of cerumen impaction, and only one placebo-controlled trial.) No trials recommending one strategy over another exist.

TABLE

EVIDENCE SUMMARY FOR IN-OFFICE CERUMEN REMOVAL

Agent Studied	N	Setting	Results
Docusate sodium and TP (Cerumenex) (3)	50	ED	Docusate more effective than TP (NNT ~2) Without irrigation: equal effectiveness
TPO and olive oil (4)	67	Outpatient	Equal effectiveness; TPO needed less irrigant
TPO and carbamide peroxide (5)	80	Unknown	TPO more effective

All studies were randomized and double-blinded, included patients of all ages, and found no adverse effects. ED denotes emergency department; N, number of patients studied; NNT, number needed to treat; TP, triethanolamine polypeptide; TPO, trietnandamine polypeptide oleate.

EVIDENCE SUMMARY

In studies that evaluated onetime softening in the office to ease or eliminate the need for irrigation, a presoak with docusate sodium (Colace) was most effective, although its effects were not compared with those of water.[1] Both triethanolamine (Cerumenex) and olive oil were the next most effective treatments.[2] Carbamide peroxide (Debrox, Murine Ear) was least effective (see Table and Table W1*).[3] In 1 small, carefully done study of ear candles, more candle wax was added than earwax was removed in the 8 ears tested.[4]

In studies that evaluated 3 to 14 days of home ceruminolysis to obviate or ease irritation, 5% urea hydrogen peroxide in glycerol was most effective.[5] Sterile water, sodium bicarbonate in glycerol, 2% acetic acid (VoSoL, Domeboro), ethylene oxide polyoxypropylene (Addax), and acpd (arachis oil, chlorobutanol, p-dichlorobenzene [Cerumenol]) were all of equal efficacy.[6-8] All were more effective than no treatment. Notably, 5% of cases resolved completely and 26% became moderately clear after 5 days of no treatment (Table W2*).[6]

No direct comparisons exist of same-day in-office softening followed by irrigation or disimpaction against home softening followed by irrigation and manual disimpaction. Until more placebo-controlled data are generated, recommendations should be based on relative safety and on the direct comparison trials within each strategy. Complications of irrigation include otitis externa, perforation, canal trauma, pain, cough, tinnitus, vertigo, otitis media, treatment failure, and time consumption.[9] Harm done by wax softeners is minimal.

*Tables W1 and W2 are available on the *JFP* Web site, http://www.jfponline.com.

RECOMMENDATIONS FROM OTHERS

The *5-Minute Clinical Consult 2001* recommends Cerumenex followed by irrigation in office. *Clinical Evidence 2001* reports that clinically accepted standards are ear syringing and manual disimpaction, although no randomized clinical trials addressing benefit or harm have been conducted. No specific recommendation made because of inconsistent, unclear study design or undefined terms (eg, impaction).

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CLINICAL COMMENTARY

I have had success with various agents in different practice settings. Overall, treatment appears to depend more on the patient's ability to cooperate, the size and hardness of the cerumen plug, and irrigation technique than on which agent is used. Patients who prove unable to tolerate irrigation on an initial visit do best with a home softening agent followed by irrigation at a later date. I recommend referral for cerumen removal when a perforated tympanic membrane is suspected.

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