Q29 Otitis Externa

For treatment of uncomplicated acute otitis externa, clinical outcomes are superior when topical antimicrobials are combined with topical steroids.

- ❍ True
- ❍ False

Educational Point: MEDLINE and PubMed databases were searched for English-language human research, review articles, and guidelines on otitis externa published between 1993 and 2023. Most retrieved articles provided level II and III evidence.

Acute otitis externa (AOE) is inflammation of the external auditory canal and can extend to the tympanic membrane or pinna. Known as swimmer's ear or tropical ear, it often occurs after increased water exposure or humidity. More than 90% of AOE infections are bacterial; typical microbes include *Pseudomonas aeruginosa* (*P aeruginosa*) or *Staphylococcus aureus*, and one-third of cases are polymicrobial.

The onset of AOE is usually within 48 hours of cerumen barrier disruption. Associated symptoms include unilateral external auditory canal (EAC) pain, itching, feeling of fullness, jaw pain, and hearing loss. Physical examination typically reveals findings of external ear tenderness, EAC edema, erythema, and limited cerumen. Other physical findings include otorrhea, regional lymphadenitis, tympanic membrane erythema, or cellulitis of the pinna and adjacent skin. Instances of severe AOE are characterized by intense pain, auditory canal obstruction with edema or otorrhea, purulent discharge, adenopathy, and periauricular edema.

Acute otitis externa lasts for less than 6 weeks, whereas chronic otitis externa (COE) lasts for more than 3 months.

In patients presenting with uncomplicated AOE, the 2014 American Academy of Otolaryngology–Head and Neck Surgery clinical practice guidelines recommend topical antimicrobial or antiseptic therapies as first-line treatment. Topical treatments are highly effective for AOE as they deliver concentrated medication directly to affected tissue. They are well tolerated and 65% to 90% of patients' symptoms clinically resolve in 7 to 10 days. Patients typically note substantial improvement in 72 hours. **Clinical outcomes are similar for topical antimicrobial treatments—either quinolones or nonquinolones with or without added steroids. There is limited evidence to support use of topical steroid treatment alone.** Topical aminoglycosides should be avoided in patients with tympanic membrane perforation, suspected perforation, or in situ tympanostomy tubes, as they can be ototoxic.

Patients with uncomplicated AOE should be first treated with topical antibiotics. Despite strong evidence for topical therapy, 20% to 44% of patients with AOE receive a prescription for systemic antibiotics. Indications for systemic therapy alongside topical treatment include diabetes, immunosuppression, symptoms of necrotizing otitis externa (NOE), infection spread beyond the EAC, symptoms refractory to topical treatment, or substantial challenges with topical delivery. Systemic treatment should be selected according to bacterial cultures and sensitivity; however, empiric antibiotics that target *P aeruginosa* are appropriate. Treatment with oral quinolones, particularly ciprofloxacin, considerably reduces hospitalization and use of intravenous antibiotics, and resolves symptoms in 90% of patients with few adverse events.

The correct answer is false.

Reference: Ellis J, De La Lis A, Rosen E, Simpson MTW, Beyea MM, Beyea JA. Approach to otitis externa. *Can Fam Physician*. 2024 Oct; 70 (10):617-623.
Link: https://www.cfp.ca/content/70/10/617.long
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