Treatment of Otitis Externa

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CORTICOSTEROID

Topical
- Useful to reduce inflammation in ear canal; helps relieve discomfort
- Opens up diameter of ear canal to allow more air circulation
- Potent steroids (eg, dexamethasone, triamcinolone, fluocinolone, mometasone) to be used initially for 2–3 weeks
- A lower-potency steroid (eg, hydrocortisone) can be used for maintenance.

Systemic
- High-dose prednisone (1 mg/lb PO q24h for 2 weeks) helps reduce ear inflammation.
- Dexamethasone (0.1 mg/lb IM) helps reduce inflammation with fewer adverse effects than high-dose oral prednisone.
- Lower-dose oral corticosteroids may control atopic signs and prevent otic signs.

YEAST
- Remove waxes and free fatty acids that are substrates for Malassezia spp growth
- Decrease inflammation in the ear with corticosteroids to slow cerumen production
- Acidify the ear canal using acid ear cleaners; yeast do not thrive in low pH ears.

Topical antifungals (eg, miconazole, clotrimazole, ketoconazole) can be effective.
- Systemic antifungal drugs (eg, ketoconazole, itraconazole, fluconazole) have little effect.
- Malassezia spp ear disease is often caused by atopy or adverse food reaction; underlying causes must be addressed.

GRAM-POSITIVE COCCI
- Includes Staphylococcus spp, Streptococcus spp, Enterococci spp (commonly found in waxy ears in conjunction with yeasts)
- Ear flushing using 0.15% chlorhexidine can be very helpful.
- Most topical otic antibiotics are effective against Staphylococcus pseudintermedius.
- Occasionally methicillin-resistant strain or Staphylococcus schleifferi are found.
- For streptococci, enrofloxacin is usually not effective.
- Atopy, adverse food reactions, and hypothyroidism are common underlying causes.

GRAM-NEGATIVE ROD
- Includes Pseudomonas spp, Proteus spp, E coli, and Klebsiella spp
- Enzyme liberation from gram-negative rods results in ulcerated ear canals with thin discharge of neutrophils and serum.
- Flush ears with warm liquids; avoid alcohols and detergents which often cause pain.
- Many chronic infections have multidrug-resistant organisms; bacterial culture and antibiotic sensitivity may decide treatment.
- Drug treatment includes polymyxins, semisynthetic penicillins (eg, ticarcillin), aminoglycosides (eg, neomycin, gentamycin, tobramycin), fluoroquinolones, and ceftazadime.
- Rotating antibiotic types q2wk may prevent resistance.
- TrisEDTA q8–12h helps make bacterial cell membranes more porous to allow a higher concentration of antibiotic to enter the cell.
- Allow it to remain in the ear for ≥5 minutes; follow with antibiotic instillation.
- Antibiotic-moistened ear wicks help keep the antibiotic in contact with the infected ear canal skin longer than drops; replace wicks every week.
- Use ear packings of topical drugs cautiously; they maintain cytopathic enzymes in contact with the ear canal longer.
- Use thick, occlusive type of ear packings (eg, lanolin-based products).

See Aids & Resources, back page, for references & suggested reading.