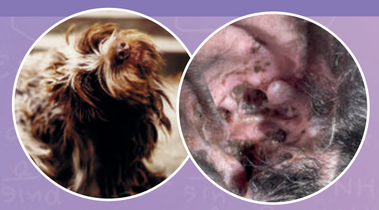
CLINICAL ASSESSMENT & MANAGEMENT OF CANINE ERYTHEMATO CERUMINOUS OTITIS EXTERNA (ECOE)

Clinical signs related to ear disease (ear pruritus, head shaking, otic exudate...)

In all cases where generalised skin disease is present, always examine ear pinnae and ear canal, and treat ear disease as early as possible to avoid/limit chronicity and difficulties in management.

ONLY erythema, cerumen and pruritus (head shaking, ear scratching, rubbing) = ECOE



Atopic dog, scratching his ear. Courtesy of: P. Jasmin

Erythemato-ceruminous otitis externa. Courtesy of: S. Viaud

NO

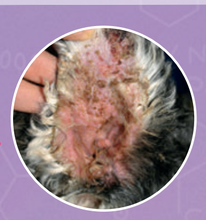
Evidence of suppurative otitis externa (pain, ulcers, purulent exudate)

Foreign body / Tumour / Polyp

Evidence of chronic OE (pain, thickening, stenosis, proliferations, fibrosis...)

Clinical signs suggestive of otitis media/interna*

YES



Suppurative otitis externa. Courtesy of: T. Nuttall

Proceed to further work-up based on clinical signs**, including ear cytology, otoscopy, ear canal flushing +/- oto-endoscopy, advanced diagnostic imaging (CT, MRI), bacterial culture (even though debatable), biopsy... proceed to appropriate topical +/- systemic treatments and/or adapted surgery if necessary.

YES

Parasitic ECOE?
Presence of ear mites on otoscopic examination and/or microscopic direct examination of otic exudate.

Otoscopy (x10) showing *Otodectes cynotis* ear infestation (little white balls). Courtesy of: S. Viaud.

Treat appropriately:
- Systemic acaricide (+/- topical)
- Ear cleaning
- Topical / systemic anti-inflammatory

NO

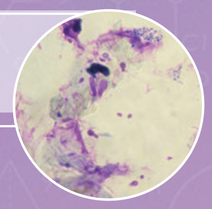
Other signs of atopic dermatitis?

NO

Also consider less common primary causes of ECOE (e.g. hypothyroidism, keratinisation defects...)

YES

Cytology of the ear exudate shows *Malassezia* and/or bacterial overgrowth



Direct cytological examination of an exudate sampling. *Malassezia* and cocci overgrowth (x1000). Courtesy of: S. Viaud

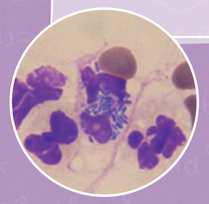
NO

Topical treatment with a corticosteroid only to rapidly control inflammation/pruritus
+/- ear cleaner depending on the amount and type of discharge

YES

Before considering antimicrobial therapy: use topical treatment with a corticosteroid only to rapidly control inflammation/pruritus and promote resolution of microbial overgrowth
+/- ear cleaner depending on the amount and type of discharge

If cytology supportive of suppurative otitis (presence of neutrophils)



Direct cytological examination of an exudate sampling. Rods and neutrophils (x1000). Courtesy of: T. Nuttall

***Clinical signs suggestive of middle/inner ear involvement**

- Chronic otitis externa;
- Suppurative otitis externa;
- Otorrhagia (hemorrhage from the ear);
- Hearing loss, vestibular signs (e.g. head tilt, nystagmus, ataxia...) , Horner's syndrome, facial paralysis;
- Intact but abnormal appearance of the tympanic membrane (bulging, haemorrhage, colour change);
- Absence or ruptured tympanic membrane;
- Evidence of material (cerumen, purulent exudate) in the tympanic bulla.

**Often difficult cases to manage, non-reversible damages may occur with chronicity, early care is required and/or referral might be recommended.

SHORT-TERM FOLLOW-UP

- Follow-up visits ideally at 1 week to 2 weeks (assess treatment success/failure) and 4-6 weeks (detection of early relapse that might require further work up and management of underlying cause)
- Assess compliance and/or reassess diagnosis or perpetuating factors in case of evident failure, before switching product.

ACUTE RELAPSES & LONG-TERM FOLLOW-UP

- Recurrent otitis is commonly a symptom of an underlying skin disease.
- Work-up dermatological differential diagnoses to identify and control the underlying disease (most commonly canine atopic dermatitis) to avoid/limit relapses and avoid chronicity and development to suppurative otitis +/- otitis media.
- For suspected atopic dermatitis treat the acute phase and implement proactive therapy.

Courtesy of our Otology Advisory Board

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