HOT TOPICS AND UPDATES FROM RECENT DERMATOLOGY CONFERENCES AND LITERATURE

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Learning Objective: Review of clinical updates from recent veterinary dermatology conferences and publications.

Tiwari A, Khajuria B. Treatment of refractory acral lick dermatitis in dogs with gabapentin. ESVD 2023

- Acral lick dermatitis (ALD) can be challenging to treat
- Evaluate another treatment option (gabapentin) for dogs with refractory ALD
    - 8 dogs (3-8 years of age) evaluated
- 3 Labrador retrievers, 3 golden retrievers, 2 beagles
- Histopathology consistent with ALD
- Refractory to Apoquel and steroids
- Gabapentin
    - 10 mg/kg po bid
        - Small partial response but licking then returned by day 20
    - 10 mg/kg po tid
        - Significant reduction in licking and erythema by day 10, but still present
    - 15 mg/kg po tid
        - Significant reduction in licking by day 5
        - PVAS decreased from 10/10 → 2/10
        - Erythema/inflammation reduced by 80 and 90% by day 10
        - No licking (PVAS 0/10) noted by day 20
    - No AEs
- Gabapentin dosed at 15 mg/kg po tid was safe and effective at treating ALD refractory to other therapies

Schnedeker A, Cole LK, Diaz SF, et al. Is low-level laser therapy useful as an adjunctive treatment for canine acral lick dermatitis? A randomized, double-blinded, sham-controlled study. VetDermJ 2021

- Objectives
    - To determine if LLLT adjunctive treatment along with conventional therapy would result in greater reduction in licking compared to conventional therapy alone
    - To assess if LLLT would provide greater change in ALD ulcer size, lesion size, lesion thickness and hair growth
- 13 dogs with ALD (~3-12 yo)
    - Australian shepherd
    - Doberman (n=2)
    - English springer spaniel
    - German shepherd (n=2)
    - German shepherd mix
    - Great Dane (n=2)
    - Labrador retriever (n=2)
    - Labrador retriever mix
    - Old English sheepdog
- Deep skin scrapings, skin cytologies, dermatophyte culture, radiographs, digital photographs, histopathology, tissue cultures (bacteria, dermatophytes)
- All dogs received trazodone and antibiotics (based on C&S)

- Treatment group
    - LLLT (130 mW x 2 min) w/ blue and red light-emiting diodes (LEDs)
- Control group
    - Sham LLLT
- 3x/wk x 2 wks, then 2x/wk for 2 wks
- Results
    - No difference in licking, ulcer size, lesion size or lesion thickness
    - Significantly greater increase (by 24%) in hair growth in treatment group (43%) vs. control (19%)
- Conclusion: when compared to conventional therapy alone, LLLT + conventional therapy did not result in a significantly greater reduction of licking or lesion size, however there was a significant increase in hair growth

Lee H, Koo Y, Yun T et al. A single-blind randomized study comparing the efficacy of fluconazole and itraconazole for the treatment of *Malassezia* dermatitis in client-owned dogs VetDermJ 2024.

- Evaluate and compare the efficacy of itraconazole and fluconazole in dogs with *Malassezia* dermatitis
- Potentially give alternative antifungal treatments for dogs with *Malassezia* dermatitis
- Evaluate adverse events (AEs) of fluconazole
- 53 dogs with with *Malassezia* dermatitis
    - Randomly divided into 3 groups
    - 5FZ: 5 mg/kg/d (n=20)
    - 10FZ: 10 mg/kg/d (n=17)
    - 5IZ: 5 mg/kg/d (n=16)
    - Evaluated on day 0, 14 and 28
- Skin cytologies
- Skin/itch scores
- Labwork -Fluconazole
- Results – Days 14 and 28
    - Significant decrease in mean yeast counts, skin and itch scores
    - No significant difference in % decrease of mean yeast counts, skin and itch scores
    - No AEs with fluconazole
- Conclusion: fluconazole at 5 mg/kg/d and 10mg/kg/d are as effective as itraconazole in the treatment of *Malassezia* dermatitis in dogs

Deleporte S, Prelaud P, Laffort C. Alopecia X in a cloned Pomeranian dog. VetDermJ 2024

- Case report describing Alopecia X in a cloned Pomeranian dog may help further elucidate the pathogenesis of Alopecia X
- 2-year-old Mi Pomeranian dog with a one-year h/o progressive alopecia consistent with Alopecia X clinically and on histopathology; lived in France.
    - Dog was neutered → partial hair regrowth, followed by relapse 2 months later
    - Died of unrelated causes 9 months after initial presentation
- Dog was cloned and puppy was born about one year later; puppy lived in South Korea for 7 months and then moved to France
    - Developed alopecia at ~ 1 year of age
    - Neutered immediately (earlier than his predecessor)
    - Partial hair regrowth noted, followed by relapse 3 months later
- Lived in different areas
- Neutering –temporary partial hair growth
- Genetic component in development of Alopecia X
- Recommend to not breed Pomeranians affected with Alopecia X

Lewis ST, Kennis RA, Clark-Price SC, et al. Influence of a single oral dose of trazodone on intradermal histamine reactivity in clinically healthy dogs. VetDermJ 2024

- Trazodone is used for management of behavioral disorders and situational anxiety, including to reduce stress during veterinary visits and may be needed prior to IDAT in some dogs
- Objective: determine if TRZ will interfere with IDAT histamine reactivity
- Healthy client owned dogs without atopic dermatitis or anxiety (n=15)
    - Randomized, blinded, 3-treatment, 3-period cross-over study
    - Low dose TRZ (4 mg/kg po)
    - High dose TRZ (8 mg/kg po)
    - No TRZ (control)
- IDAT with histamine (5 dilutions) and saline performed
    - Scored objectively and subjectively by 2 scorers
- Results
- 14/15 dogs completed the study
    - Dog removed for GERD- needed tx
- Mean wheal diameter of histamine for 1:1,600,000 w/v was significantly smaller with low-dose trazodone ($p = 0.048$), however no significant differences in mean wheal diameter in all other histamine dilutions and saline in all groups
- No significant differences in subjective scoring in all histamine dilutions and saline in all groups
- Single dose of trazodone did not significantly affect intradermal histamine or saline reactions in dogs, so it should be ok to give a dose of trazodone before intradermal allergy testing

Tongen L, Heinrich N, McGilliard M. Effect of *Staphylococcus* species isolation from a 72-h transport delay of canin pyoderma samples to a microbiology laboratory. VetDermJ 2025

- Objective: to determine if processing times of aerobic cultures affect culture results of *Staphylococcus* species
- Client owned dogs with pyoderma lesion(s) and cocci noted on cytology
- Three cultures per dog; 2 cultures submitted same day (immediate culture [IC]) and one culture refrigerated for 72 hours before submission (delayed culture [DC])
- Cultures submitted via 3 order combinations
- 90 samples (30 dogs) analyzed; Staph isolates in 55% (10% methicillin-resistant)
- Staph spp isolated in 98% of cultures and 100% of dogs
- Same Staph spp on all 3 cultures in 90% of dogs
- Susceptibility testing analyzed on 15 antibiotics
- Delayed collection, third in order showed difference in susceptibility nearing statistical significance with cefovecin ($p = 0.08$) nad doxycycline ($p = 0.06$)
- Delayed collection showed higher resistance (($p = 0.01$) for chloramphenicol
    - *S. pseudintermedius* was susceptible with IC and intermediate with DC in 2 dogs
- Transport delay of 72 hours did not significantly affect *Staphylococcus* spp isolation, methicillin-resistance or antibiotic susceptibilities for *S. pseudintermedius*, with the exception of chloramphenicol susceptibilities

Berto L, Denti P, Orlandini M, et al. Clinical characteristics predictive of otitis media in dogs with chronic-recurrent otitis externa. ESVD 2023

- Subclinical otitis media (OM) is present in some dogs with chronic-recurrent otitis externa (OE) and identifying clinical and cytological findings might help predict dogs with OM
- Medical records of dogs (191 dogs/208 ears) with chronic-recurrent OE that included CT and video otoscopy were reviewed
- Dogs were divided into 2 groups: Dogs with OE and dogswith OE + OM

- Reviewed: breed, ear cytology, pain at ear palpation, pain at opening mouth, cranial nerve deficits, hearing impairment
    - OM reported in 34% of dogs (41 dogs/50 ears)
    - Brachycephalic breeds were significantly greater #s in OE + OM group vs. OE group
    - None of the other parameters were significantly more represented
- Being a brachycephalic dog was the only predictive finding of OM in dogs with chronic-recurrent OE

Denti D, Orlandini P, Berto L, et al. Concordance between antimicrobial susceptibility test results and clinical response to topical antibiotics in canine chronic bacterial otitis externa. ESVD 2023

- Evaluated concordance of ear C&S and clinical effectiveness of selected antibiotics in dogs with chronic bacterial otitis externa (OE)
- Dog with chronic bacterial OE were evaluated with clinical exam, ear cytology, CT scan, video otoscopy
- Empirically treated with ABs, then rechecked q714d until resolution or 60 days
- Results
    - 61 microorgnisms isolated
        - Most common: Pseudomonas, Staph pseudintermedius, Proteus mirabilis
- 70% (26/37) treatment success with in-vitro effective antibiotic
- 67% (4/6) treatment failure with in-vitro ineffective antibiotic
    - Ineffectiveness despite the antibiotic concentration > MIC
- When needed, it is best to treat chronic bacteria OM based on culture and sensitivity

Dalmau A, Ordeix L. Putative pemphigus-like reaction to oral fluralaner in a dog. VetDermJ 2023

- To describe a dog with a probable pemphigus foliaceus-like drug reaction to fluralaner
- Some cases of pemphigus foliaceus (PF) are secondary to drug reactions
    - Sulfonamides
    - Cephalexin
    - Oxacillin
    - Amoxicillin-clavulanic acid
    - Shampoos (ketoconazole)
    - Antiparasitic agents
        - Metaflurimone, amitriax (Promeris)
        - Afoxolaner (Nexgard)
        - Dinotefuran, pyriproxyfen, permethrin (Vectra 3D)
        - Fipronil, (s)-Methoprene, amitraz (Certifect)
        - 9-month-old MN mixed-breed dog
- 9 mo old MN mixed breed dog
    - Acute onset of lethargy, pruritus, hyporexia and generalized crusts and pustules
- Fluralaner (Bravecto) give orally at 3 months of age and 9 months of age (7 days prior onset of clinical signs)
- Skin scrapings, trichograms and Wood's lamp negative
- Cytology-neutrophils, numerous acantholytic keratinocytes, scant EC cocci
- Fungal and bacterial cultures-negative
- CBC: leukocytosis and mature neutrophilia; chemistry panel: WNL
- Histopathology: pemphigus foliaceus
- Prednisone 1.2 mg/kg po bid, lesions resolved
- Prednisone taper after 2 months to 0.2 mg/kg po sid, then when tapered to eod, PF flared.
- Apoquel tried (0.6mg/kg po bid x 10d)- no improvement
- Increased pred dose to 1mg/kg sid x 1 week, then tapered

- Tx discontinued at 4 months
- Bravecto maintains activity for ~ 3 months
- No relapse for at least one year
- Suspect drug reaction
    - Compatible clinical history, clinical presentation, histopathology
    - Drug reactions usually occur ≥ 7 days after drug exposure
- Discontinue drug: some patients may need concurrent immunosuppression

Bercovitz GR, Gaerig AM, Conway ED, et al. Long-lasting otic medications may be a rare cause of neurogenic keratoconjunctivitis sicca in dogs. JAVMA 2023

- Characterized the clinical course and long-term prognosis secondary to Claro, Neptra or Osurnia
- Evaluated medical records from 29 dogs who developed neurogenic KCS within one day after long-lasting otic medication application.
- Tear production returned to normal in 24/29 dogs within median time of 86 days (range=19-482 days)
- Corneal ulcer development in 20/29 dogs
- Suspected cause of nKCS: penetration of medication through perforated tympanic membrane into middle ear
- Possible causes of corneal ulcers: nKCS and/or chemical injury from medication splatter into eye. Authors felt corneal ulcers were more likely from the nKCS
- Authors recommend advising clients to watch for signs of nKCS after having these medications instilled into ears

References:

1. Tiwari A, Khajuria B. Treatment of refractory acral lick dermatitis in dogs with gabapentin. ESVD 2023
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5. Lewis ST, Kennis RA, Clark-Price SC, et al. Influence of a single oral dose of trazodone on intradermal histamine reactivity in clinically healthy dogs. VetDermJ 2024
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7. Berto L, Denti P, Orlandini M, et al. Clinical characteristics predictive of otitis media in dogs with chronic-recurrent otitis externa. ESVD 2023
8. Denti D, Orlandini P, Berto L, et al. Concordance between antimicrobial susceptibility test results and clinical response to topical antibiotics in canine chronic bacterial otitis externa. ESVD 2023
9. Dalmau A, Ordeix L. Putative pemphigus-like reaction to oral fluralaner in a dog. VetDermJ 2023
10. Bercovitz GR, Gaerig AM, Conway ED, et al. Long-lasting otic medications may be a rare cause of neurogenic keratoconjunctivitis sicca in dogs. JAVMA 2023