Paws for Relief-- Purrfect help for Itchy Kitties

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Learning objective: Help itchy kitties! We will examine how we can help our pruritic feline friends, focusing especially on feline allergic skin disease. We will delve into what's new in feline allergy with an emphasis on diagnosis and therapeutic modalities.

Let's help those itchy kitties!

- Itchy Cats- Diff Dx
 - Feline atopic skin syndrome (FASS)
 - Feline food allergy
 - o Flea allergy dermatitis/fleas
 - Other ectoparasites
 - Mites
 - Lice
 - o Pruritus in disguise
 - Pain
 - Behavioral
 - o Other
- Feline Atopic Syndrome (FAS) Classification
 - Cutaneous
 - Flea allergy dermatitis (FAD)
 - Feline atopic skin syndrome (FASS)
 - Feline food allergy (FFA)
 - Gastrointestinal
 - Feline food allergy (FFA)
 - Respiratory
 - Feline asthma
- Atopic Cats vs. Dogs
 - Cats
 - Age of onset
 - 75% start between 6 months to 2 years of age
 - Several patterns of presentation
 - Miliary dermatitis (MD)
 - Self-induced alopecia (SIA)
 - Face, head, neck pruritus (FHN)
 - Eosinophilic granuloma complex (EGC)
 - o Dogs
 - Age of onset
 - 90% start between 6 months and 3 years of age
 - More distinct clinical presentation
- Miliary dermatitis (MD), Self-induced alopecia (SIA), Face, head, neck pruritus (FHN), Eosinophilic granuloma complex (EGC) can be seen with the following:
 - Feline atopic skin syndrome (FASS)
 - Feline food allergy
 - Flea allergy dermatitis/fleas
 - Other ectoparasites
 - Mites
 - o Lice
 - Pruritus in disguise
 - o Pain
 - Behavioral

- Other
- Additional clinical signs that may be seen with feline food allergy
 - Urticaria
 - Non-pruritic nodules
 - Plasma cell pododermatitis
 - Vomiting
 - o Diarrhea
 - o Weight loss
 - Poor appetite

Workup

- Evaluate for bacteria and yeast
 - Skin cytologies
 - +/- trial treat
 - +/- culture and sensitivity to help guide antibiotic therapy
 - Infection often heightens level of pruritus
 - Infection may mask response to allergy treatment(s)
- Evaluate for dermatophytes
 - Ringworm PCR and/or culture
- Evaluate for mites and lice
 - Skin scrapings
 - Hair plucks/trichograms
 - Tape preps
 - Trial treatment
 - Flea control products
 - Lime sulfur
- Flea control, flea control, flea control
 - Contact local dermatologist for recommendations
- o Antibiotics-

Amoxicillin-clavulanate: double-blind placebo-controlled study

- Eosinophilic plagues and indolent ulcers
- Cytology revealed neutrophils and intracellular cocci
- Cats received either amoxicillin-clavulanate or placebo. All cats received flea control.
- Results: Treatment group had a significant decrease in lesion size (plaques by 96% and indolent ulcers by 42%). There was also a significant decrease in bacterial numbers. The placebo group had no change in plaque size and indolent ulcers had a 37% increase in size. There was no significant reduction in bacterial numbers. No adverse events in either group.
- Food elimination diet trial
 - Typically recommended for 6-10 weeks with either a home-cooked (use a veterinary nutritionist to formulate diet) or prescription diet (ultra-hydrolyzed, hydrolyzed, novel protein, what the cat will eat
- T4 (older kitties); also cbc, chemistry panel, UA

Work up/Symptomatic therapy

- Allergy testing → allergen-specific immunotherapy (ASIT)
 - Limited number of studies. Overall success rate shows 80% of cats had a good to excellent response or partial response. Sixty percent had a good to excellent response where they didn't or rarely needed medication. Partial responders were defined as having a good response but still needed medication or intermittent medication.
 - Overall considered safe long-term
 - Sublingual immunotherapy (SLIT)

- 22 cats with HD mite hypersensitivities where flea bite hypersensitivity, food allergy, fungal and bacterial infection were ruled out. The cats were placed on SLIT and flea control. Methylprednisolone was allowed if needed.
- 6 cats (27%) withdrew from the study. Reasons for withdrawal included lack of efficacy (1), difficulty in administration of SLIT (1) likely due to pre-existing gingivostomatitis, bladder tumor, poor owner compliance
- Results
 - SCORFAD reduced from 22.0 → 5.7
 - Pruritus score reduced from $7.9 \rightarrow 3.6$
 - No adverse events reported
 - Methylprednisolone dosing: 7 cats received methylprednisolone with an average dose of 0.81 mg/kg/day at the beginning of the study; at 3 months, 5 cats were receiving methylprednisolone with average dose of 0.43 mg/kg/day. At the end of study, 4 cats were receiving methylprednisolone with an average dose of 0.33 mg/kg/day
- Conclusion: SLIT should be considered a rapid, effective, safe and welltolerated treatment in cats with FASS

Steroids

- Prednisolone
 - o Oral -tablets, liquid
 - Transdermal
- Methylprednisolone
- Dexamethasone
 - Oral -tablets and injectable
- Triamcinolone

Cyclosporine

- Atopica for Cats
 - 181 cats in a placebo-controlled study
 - Mean reduction in total lesion score: 65.1% in tx group and 9.2% in placebo group
 - Treatment success per owner: 78.6% in tx group and 26.2% in placebo group
 - 12-week open-labeled field study: 62.9% of cats able to get to 2x/wk dosing
- Cyclosporine Forms
 - Atopica for Cats
 - 100mg/mL 7mg/kg; most cats ~0.3 mL per dose
 - Cyclavance (dogs)
 - 100mg/mL most cats ~0.3 mL per dose
 - Atopica (dogs) / Sporimune (dogs)
 - Usually 25mg capsules (underdosing?)
 - Modulis[®] for Cats
 - 100mg/mL 7mg/kg; most cats ~0.3 mL per dose
 - BCP cyclosporine chews
 - Compounded
- Cyclosporine- poor transdermal absorption
- Cyclosporine adverse events: GI most common
- Cyclosporine AEs –Toxoplasmosis
 - Cats that get infected with Toxoplasmosis while receiving daily CsA developed more severe clinical signs or died. Shedding oocysts and recurrence of clinical signs were not seen cats that were already infected with Toxoplasmosis before administration of CsA. Consider Toxoplasmosis titers before starting treatment with CsA. Keep cats indoors and do not feed raw meat diets

Apoquel

- Not approved for cats
- When cats received Apoquel at 0.4-0.6 mg/kg bid x 14 d, then sid x 14 d (dog dose), 33% good to excellent response, 25% fair response and 42% poor response.
- When cats received Apoquel at 1 mg/kg po bid (0.7-1.2 mg/kg bid) x 28 d, 55% good to excellent response, 20% fair response, 25% poor response
- Most common adverse events: GI upset (esp vomiting and soft stools)
- Chewable Apoquel (for dogs) is palatable to cats. Hide the pill vials.
- Labwork monitoring recommended
 - Increased liver enzymes (esp. ALT)
 - Neutropenia
 - Thrombocytopenia
 - o Increased BUN and creatinine
 - +/- Increase in fructosamine (but WNL)
 - +/- Hypercholesterolemia
 - o Do not use in FIV/FeLV+ cats → death has been reported

Antihistamines

- Average help about 36% of allergic cats (good to excellent response)
- Overall well-tolerated
- o Cetirizine
 - 2.5 5mg per cat q124h
 - Lethargy
- Chlorpheniramine
 - 2 mg per cat po g12h
 - Sedation in 2/37 cats
- Clemastine
 - 0.34-0.68 mg per cat po q12h
 - Diarrhea in 1/10 cats
- o Cyproheptadine
 - 2 mg/cat po q12h
 - Vomiting in 2/20 cats
 - Polyphagia in 6/20 cats
 - Behavior changes/vocalization in 4/20 cats
- Loratadine
 - 2.5 5mg per cat g124h
 - +/- sedation

Maropitant (Cerenia[®])

- 2 mg/kg once daily po x 4 weeks (12 cats)
- SCORFAD: decreased from 7.8 to 2.2
- o Pruritus scores: decreased from 7.1 to 2.3
- o Adverse events: hypersalivation in 2/12 cats

Gabapentin

- o Analgesic (pain, neuropathies), anticonvulsant, anxiolytic, anti-pruritic
- o Dose: 5-20 mg/kg po q8-12h
- o Transdermal questionable efficacy
- Adverse effects: lethargy, ataxia, hypersalivation, vomiting

Redonyl Ultra Feline (Dechra)

- o Active ingredient: palmitoylethanolamide ultramicronized (PEA-UM)
- Palmitoylethanolamide (PEA)
 - Downregulates mast cell degranulation
 - Upregulates anti-inflammatory cytokines (e.g. IL-10)
 - Decreases inflammatory cytokines (e.g. IL-2)
- Open-label study 15 cats
 - PEA-analog twice daily x 30 days

- 10/15 cats (67%) improved clinically
- Placebo-controlled study 25 cats
 - PEA-UM twice daily or placebo x 12 weeks
 - Methylprednisolone tapering x 4 weeks
 - Then no treatments x 4 weeks
 - Time to relapse significantly longer in cats that had received PEA
 - 40.5 days versus 22.2 days
 - Pruritus lower in d28 PEA cats versus placebo cats
- Redonyl Ultra Feline (no longer available ⊗)

Dermaquin (Nutramax)

- o Supports and maintains skin barrier and skin hydration
- o Immune system support
- Hardy kiwi
 - Reduced skin scores when used as an adjunct (dogs)
- Beta-glucan
 - Supports healthy skin immune system
- Palmitoylethanolamide (micronized)
- Omega-3 fatty acids
 - Skin barrier function
 - Shift toward less inflammatory mediators
- Small size chews are labeled for small to medium dogs and cats
 - Feed whole or break up
- Adjunct therapy

Fatty Acids

- Most studies revealed ~50% of allergic cats responded to fatty acids
- Resolution of miliary dermatitis in 3/5 cats
- Cutaneous reaction to histamine reduced by 20-40%
- Renal and brain health

General Derm Diets

- Hill's Sensitive Stomach & Skin
- Purina Sensitive Skin & Stomach
- Others

Decrease Stress / Anxiolytics / Environmental Enrichment

- o Fluoxetine
- Solliquin (Nutramax)
- Zylkene (Vetoquinol)
- Calming care (Purina)
- o Environmental enrichment
- o Pheromones
- +/- Imuquin (Nutramax)

Topical Therapies

- Douxo S3 Calm mousse (Ophytrium)
- Atopivet Collar (Biosfeen)

Mechanical Barriers

- E-collars
- T-shirts
- Infant/doll cloths
- Thundershirts
- Soft Paws^R

- Booties/socks
- Trim nails

Work up/treatment summary

- R/O ectoparasites
 - Flea control
- Check for/treat secondary infections
 - o Bacteria, yeast
- Food elimination diet trial
- General "derm" diets
- Allergy management
- Symptomatic therapy
- Environmental enrichment
- Reduce stress
- Allergy Management- Cats
 - Fast acting therapy for immediate comfort
 - Steroids
 - +/- Apoquel
 - Takes a few weeks...
 - Cyclosporine
 - Long-term therapeutic goal
 - Allergen-specific immunotherapy
 - Adjunctive therapies
 - Supplements
 - Dermaquin, Redonyl, fatty acids
 - Topical therapies
 - Decrease stress/environmental enrichment
 - Barrriers (if not too stressful)
 - Kitty is still too itchy...consider
 - Gabapentin
 - Cerenia
 - More environmental enrichment
 - Fluoxetine
 - Solliquin
 - Zylkene
 - Calming Care
 - Pheromones
 - +/- Imuquin
 - Refer to your local board-certified veterinary dermatologist

Thank you for helping itchy kitties:)

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