



There are More Ways to Skin a Crusty Cat: Decoding Feline Dermatology



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There are More Ways to Skin a Crusty Cat: Decoding Feline Dermatology

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Overview

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There are few short cuts in feline Derm




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Hobi et al. 2011

Veterinary Dermatology

DOI: 10.1111/j.1365-3164.2011.02862.x

Clinical characteristics and causes of pruritus in cats: a multicentre study on feline hypersensitivity-associated dermatoses


- Multi-center study, 502 pruritic cat cases
- Feline allergic, infectious, auto-immune, and neoplastic skin disease can all look clinically similar




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Diagnostic tools

- Skin scrapings
- Trichoscopy
- Skin cytology
 - Tape
 - Direct smear
- Wood's Lamp
- Cultures
 - Aerobic bacterial
 - DTM
- Bloodwork
- Biopsy




With these tools, I can solve any mystery!





Basic Steps

- History
- Physical examination
- Use Hx and PE findings to select the appropriate diagnostic algorithm



VS

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History

- Not as helpful as with dogs
- Some helpful questions
 - Age of onset
 - Seasonality
 - Other animals involved
 - including owner
 - If current on ectoparasite prevention
 - Previous response to therapy



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Physical examination

- Lesion type
- Lesion distribution



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Time to pick an algorithm

- Allergic/hypersensitivity work-up
- Non-allergic work-up



Vetfolio.com



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4 Main Skin Lesions of Allergic Cats

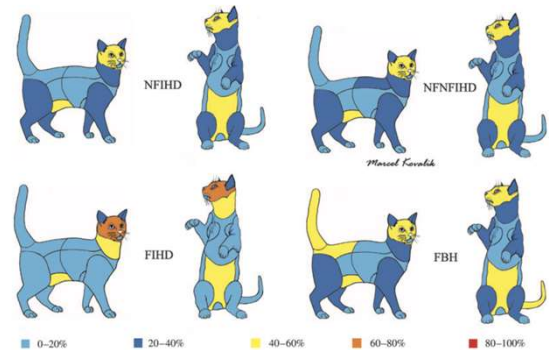


If you see one of these lesions:

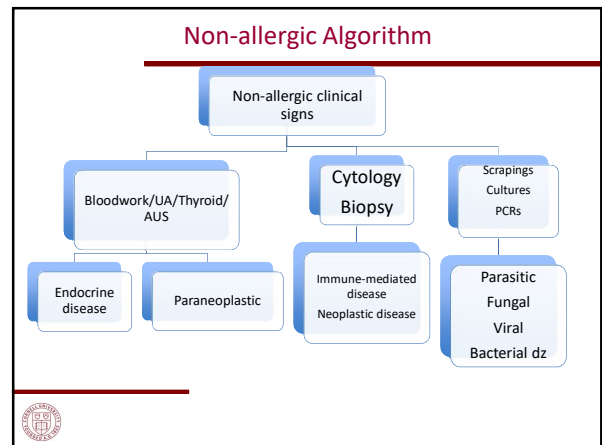
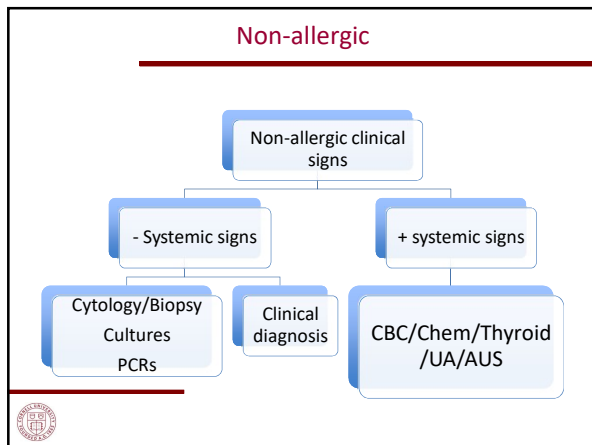
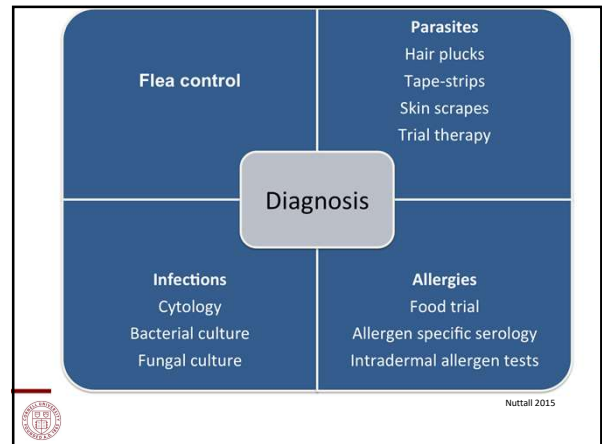
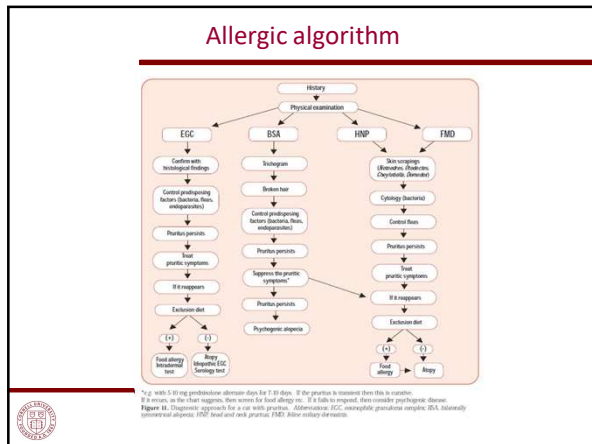
- Miliary dermatitis
 - Face/neck pruritus
 - Self-induced alopecia
 - Eosinophilic granuloma-complex
- Alone, any skin disease can cause each clinical sign
 - Having 2+ concurrently = more likely to be allergies
 - Environmental vs food clinically indistinguishable



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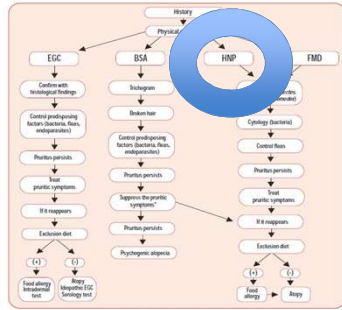


Hobi et al. 2011



- ### Taffy: history
- 4 year old castrated male DSH
 - Indoor only cat
 - 2 other cats in household, both unaffected
 - 8 month history of severe facial itchiness
 - Owner not itchy
 - No response to anti-histamines, steroids, or antibiotics
 - Owner and kitty DESPERATE
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Allergic algorithm: Head and neck pruritus



- Step 1: Ectoparasites
- Step 2: Rule out infection
- Step 3: Diet trial

*e.g. with 5-10 mg prednisone administered for 7-10 days. If the pruritus is treated then this is confirm. If it recurs, as the chart suggests, then search for food allergy etc. If it fails to respond, then consider psychogenic disease.



Diagnostic algorithm

HNP

Ectoparasites?

- Eliminate these first:
- Skin scrapings
 - Flea combs
 - Treatment trials



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HNP

Ectoparasites?

Infection?

Treat!

- Rule out infection:
- Cytology
 - Fungal culture
 - Response to therapy



Taffy's work-up

- Skin cytology= no evidence of infection
- Skin scrapings= negative
- Black light examination= negative
- Fungal PCR = negative
- Pruritic despite Bravecto trial



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HNP

No Ectoparasites
No infection

Allergy

DIET TRIAL

Environmental allergies

Food allergies



Preliminary diagnosis

- Allergic dermatitis
 - Food vs environment
- Next steps:
 - 1. Control itch (if possible)
 - 2. Elimination diet trial



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Anti-itch options for cats

	Anti-histamines	Prednisolone	Atopica	Apoquel
Efficacy	20%	70-80%	70-80%	NOT
Speed of onset	0-2 weeks	1-2 days	1-2 weeks	APPROVED
Duration of action	Very short	Short	Washout 2-4 weeks	FOR
Ease of administration	Pills	Pills or liquid	Liquid (bitter)	CATS
Safety	Very	Good short term	Good short and long-term (indoor only)	
Cost	Very cheap	Very cheap	\$\$\$	



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Plan for Taffy



Response to diet trial

- Week 1-4: Itch unchanged. Stopped Zyrtec
- Week 5-8: Gradual, marked improvement
- Week 9: Challenged diet with old food → itchy mess
- Week 10: Back to RC Ultamino → itch resolved
- → confirms diagnosis of food allergy



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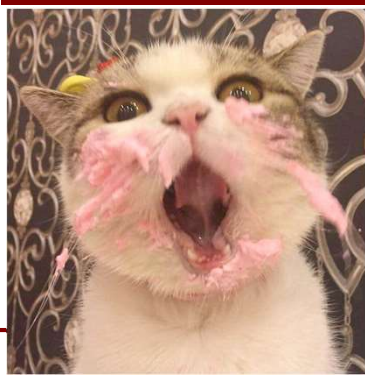
Identification of allergen

- Add in potential allergens 1 by 1:
 - Week 11: Ultamino + chicken = flare
 - Week 12: Ultamino + beef = no flare
 - Week 13: Ultamino + fish = flare
 - Week 14: Ultamino + soy = no flare...
- Select diet that does not contain the allergens

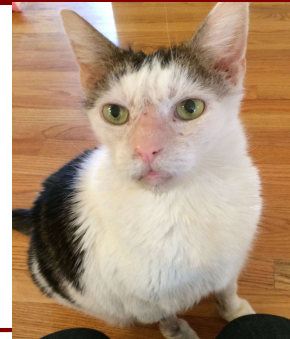


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Happy kitty!



Case 2: Bart



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Case 2: History

- 7 year old NM DSH
- 2 year history of steroid-responsive itching and crusting
- Relapses off steroids
- Not on ectoparasite prevention but indoors only
- Other animals/people not itchy



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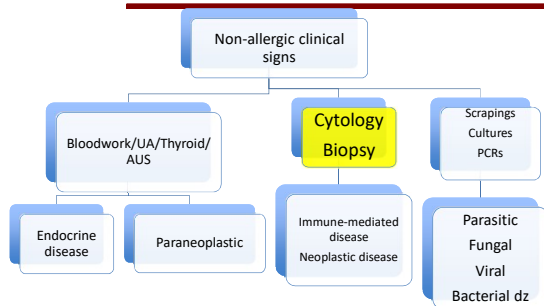
PE findings not consistent with allergic dz

- Crusts affecting **foot pads, nailbeds, face, around nipples**

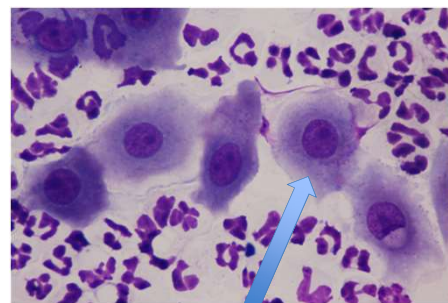


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Non-allergic Algorithm



Cytology



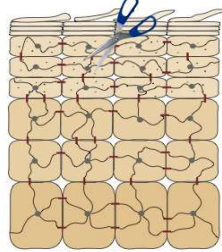
Acantholytic cells



Pemphigus foliaceus

- Most common autoimmune skin disease of the cat
- Fragile pustules → crusts
- Face, nipples, nailbeds, pawpads

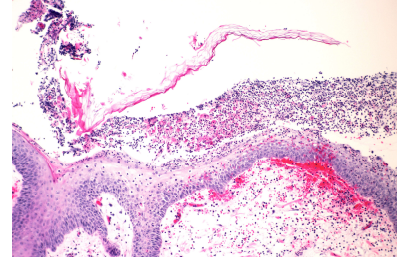
Auto-antibodies to desmosomal proteins



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Biopsy

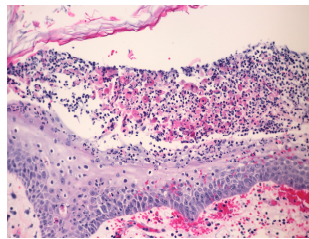
- Confirms diagnosis and rules out other acantholytic pustular diseases



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Keys to a diagnostic biopsy

- Fresh lesions
- Not on immunosuppressives
- No site prep
- Multiple biopsies



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Treatment: Monotherapy

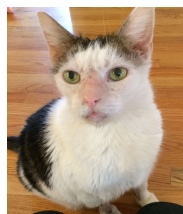
- Immunosuppression with corticosteroid
 - 2 mg/kg predniSOLONE q 24 hr achieved complete remission in 8 weeks in 97% of cats (n = 37)
 - Adverse events uncommon on this dose
 - Old literature values up to 8 mg/kg may be due to using predniSONE



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Steroid monotherapy

- Long term aim:
 - Maintain remission with prednisolone
 - 67% maintain on pred alone
 - Median dose 1.2 mg/kg/week



I demand dual-therapy!



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Steroid monotherapy

- If side effects or inadequate response, consider switching to:
 - Methylprednisolone (0.8x pred dose)
 - Dexamethasone (0.1-0.2x pred dose)
- Or switch/incorporate Atopica



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Alternative treatment protocols

- Cyclosporine 7 mg/kg q 24 hr
 - Expensive
 - Liquid but tastes bad
 - Lag time to take effect
 - GI side effects, check FIV/FelV
- Chlorambucil 0.1-0.2 mg/kg q 24-48 hr



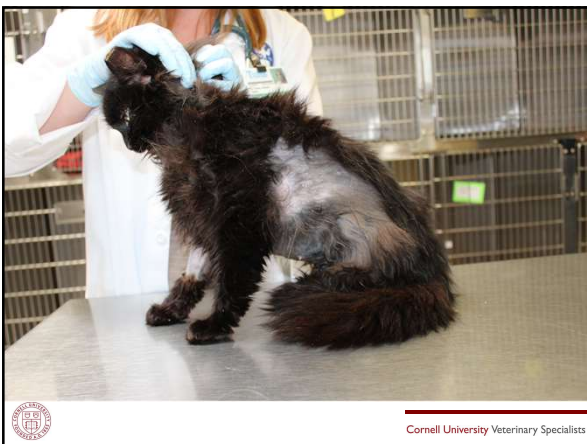
Follow-up

- Induction:
 - Prednisolone 2 mg/kg
 - Atopica 7 mg/kg
- 9 months post dx:
 - Atopica q48 hr



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Case 3: Lidle



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Lidle: History

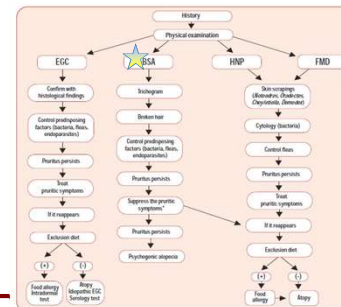
- 12 year old DLH
- Progressive weight loss
- Presented to IMED for further work-up
 - Indoor-only cat
 - Only other pet is a rabbit (normal)
 - No flea/tick



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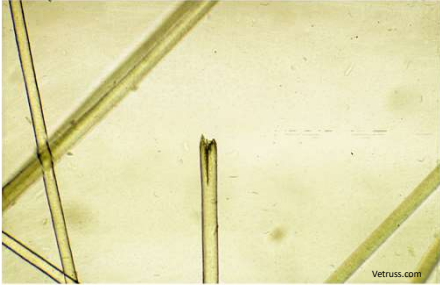
PE findings: bilaterally symmetric alopecia

- Despite possible IM disease, initiate allergic algorithm



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Trichogram



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Skin scrapings



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Cheyletiella sp.



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Treatment



- Avoid fipronil in household with rabbit due to toxicity
- Methimazole for hyperthyroidism



Case 4: Lucky



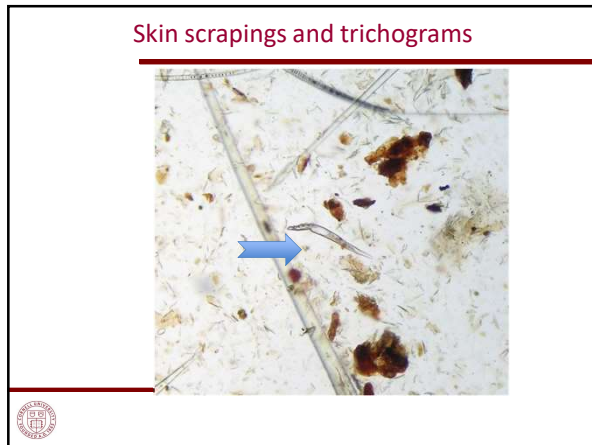
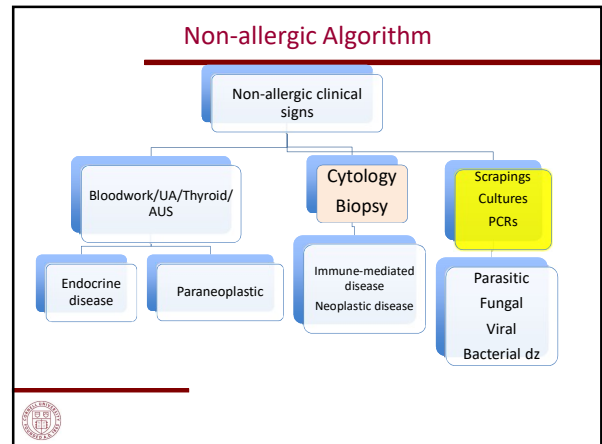
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Lucky: history

- 11 year old DLH
- Indoor only, only pet
- 1 year history of unregulated diabetes mellitus
- Hospitalized for work-up
- Dermatology consult for hairloss



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Demodex cati

- Non-contagious mite
- Immunocompromised cats
- Patchy alopecia and scaling

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Treatment

- Advantage Multi q weekly
- Bravecto- presumed efficacy, no studies yet
- Lime sulfur q weekly
- Ivermectin

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Feline skin fragility syndrome

- Skin thinning and large, non-painful tears in skin on routine handling
- Associated with DM, Cushing's, hepatic disease, neoplasia, FIP
- Poor prognosis



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Lucky's outcome

- Surgical attempts at closure failed
- Skin graft failed
- Elected euthanasia
- Necropsy: pituitary mass
- Diagnosis:
 - PDH leading to uncontrolled DM and Feline Skin Fragility Syndrome and demodectic mange



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Case 5: Mia



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Mia: history

- 2 year old SF Persian
- Adherent crusty debris on face, rubs at face
- Other cat (Persian) mildly affected
- No lesions on owner
- On monthly Revolution
- Indoor-only

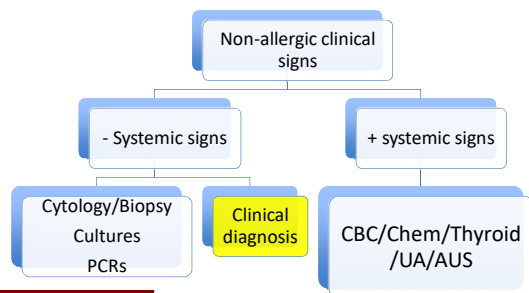


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Non-allergic algorithm



Idiopathic facial dermatitis of the Persian and Himalayan

- Genetic basis
- Adherent waxy black material on muzzle, periocular areas
- Can cause ceruminous otitis externa
- Can predispose to bacteria/malassezia dermatitis
- Responds to anti-inflammatory treatment



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Treatment



Questions?



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