

Equine Allergy Testing

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Dermatology for Animals

Equine Environmental Allergies

- Atopic Dermatitis is a multifactorial disease resulting in a cutaneous IgE mediated reaction to environmental allergens.
- Clinical signs: itching (biting, stomping, tail flicking, head shaking, etc.), alopecia or crusting secondary to trauma from rubbing, and urticaria.
- Signs may or may not be seasonal
- Throughbreds, Arabians, Quarterhorses, and Warmbloods may be more at risk

What type of testing is available

- ▶ Serology: Blood test for IgE.
 - ▶ Can have higher rate of false negatives and false positives
 - ▶ IgE can be effected by many variables
 - ▶ Often combined with IDAT
- ▶ Intradermal skin test (IDAT)
 - ▶ Injections of allergen under the skin looking for a cutaneous reaction
 - ▶ Can evaluate both immediate and late phase



How does immunotherapy work?

- Immunotherapy aka ASIT is a serum formulated with extracts of allergens based on the results of the allergy test
- The goal is to shift the immune response from IgE to IgG resulting in tolerance

D4A
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LARGE ANIMAL ALLERGEN PANEL - AZ, NM, TX
Client: D4A ABQ Patient: 09/03/2020

Allergen	Score	A	B	C	Allergen	Score	A	B	C
1. Saline					38. Alternaria				
2. Histamine					39. Aspergillus				
3. Ash (2-4)					40. Penicillium				
4. Elm (3-5)					41. Cladosporium				
5. Mulberry (3-5)					42. Helminthosporium/Orizyzaea				
6. Olive (4-5)					43. Phoma				
7. Palm					44. Rhizopus				
8. Pecan-Hickory (4-5)					45. Grass Smut Mix				
9. Juniper (1-4)					46. Fusarium				
10. AZ Cypress					47. Stemphylium				
11. Mesquite (4-6)					48. Flea				
12. Cottonwood (W & F)					49. Cat				
13. Orange					50. Equisetum/D. Canadense				
14. Walnut					51. Broussaisia				
15. Mt. Cedar					52. Mustard				
16. W. Oak Mix					53. Pine				
17. Bermuda (3-6)					54. Eucalyptus				
18. Johnson Grass (5-8)					55. Insect Mix				
19. 5-Grass Mix					56. Pollaria				
20. Rye Grass					57. Monobolus/Acremonium				
21. Brome Grass (3-5)					58. Alfalfa				
22. Fescue					59. Hackberry				
23. Goldenrod (8-9)					60. Wool				
24. Kochia (7-9)					61. Human Dander				
25. Dandelion					62. Malassezia				
26. Dock/Sorrel					63. Mixed Feathers				
27. Lamb's Quarter (4-10)					64. Storage Mite (Mix)				
28. English Plantain					65. Epidermophyton Nigrum				
29. Pigweed (5-11)					66. Burdock/Desert Ragweed				
30. Careless Weed					67. Iodine Bush				
31. Marsh Elder (7-10)					68. Rabbitbrush				
32. Cocklebur (7-10)					69. Desert Broom (Baccharis)				
33. Russian Thistle (7-10)					70.				
34. Sagebrush					71. Grain Smut Mix				
35. Ragweed					72. Horse Fly				
36. Burno Bush					73. Grain Mill Dust				
37. Scale/Apple Mix					74. Rhodotorula				
					75. Lactobacillus				

DVM: _____ Tech: _____
Changes: _____
Focus

Why is immunotherapy beneficial

- Ability to avoid drugs with negative side effects, like steroids
- Can make environmental recommendations for avoidance when possible
 - Storage mites
 - Biting insects
 - Wool
- Antihistamines, fatty acids, and pentoxifylline are often more effective in combination with immunotherapy than when used as sole agents.

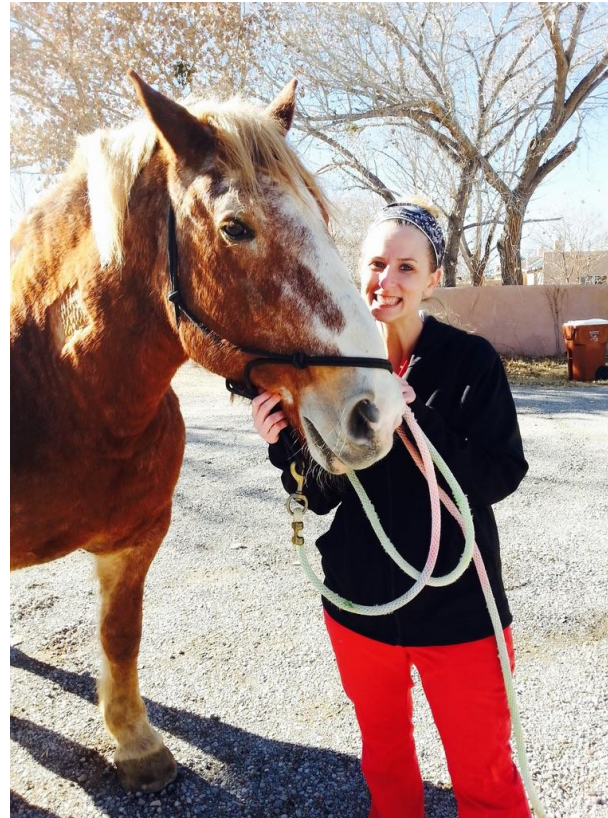
What is the process of skin testing?

- ▶ Withdrawl times of medications is important
 - ▶ Antihistamines 2 weeks
 - ▶ Steroids 4-8 weeks
- ▶ Requires sedations-Work with primary veterinarian
- ▶ Shave a small patch on the neck area
- ▶ Injecting of allergens and reading/scoring of test



How do I give allergy shots?

- ▶ Injections schedules are provided
- ▶ Injection volume slowly increases during the induction period
- ▶ Subcutaneous injections, most commonly given on the neck
- ▶ Most owners are comfortable giving the injections

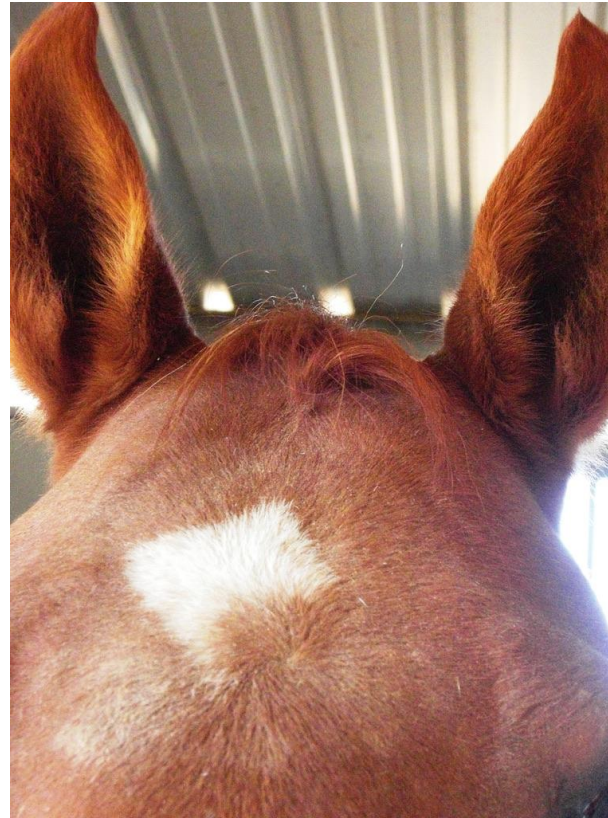


Side effects of immunotherapy:

- Immunotherapy is generally considered very safe
 - Anaphylaxis- very uncommon
 - Generalized urticaria-uncommon
 - Injection site reaction (swelling, warmth, itching)
- Can generally avoid with induction schedule
- Short term and generally manageable with dose or frequency adjustments

What are the costs associated?

- ▶ The estimate for the initial testing is about \$1300-\$1650
- ▶ In some cases immunotherapy can be discontinued after 1-2 rounds of vials (about 12-18 months).
- ▶ Refills of vials are \$365-\$600



Questions?

