



INVITED LECTURES - FULL PAPERS

I - Clinical Immunology WHY IS THIS DISEASE IMMUNE?

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What is an immune-mediated disease?

There is a spectrum of immune-mediated disease that may be considered on a number of different levels. Clinically, four major subtypes of immune system abnormality are recognized: (1) primary congenital immunodeficiency, (2) allergy, (3) autoimmunity and (4) immune system neoplasia. On another level, immune-mediated disease might be considered to be primary or secondary in nature. Finally, many types of immune-mediated diseases might be considered mechanistically – using the Gel and Coombs classification of hypersensitivity reactions.

What are the general characteristics of immune-mediated disease?

- A strong genetic basis.
- Particular age predispositions.
- Non-specific clinical signs.
- A waxing and waning clinical course.
- Absence of underlying disease or recognized trigger factors.
- Response to immunomodulatory therapy.

What are the laboratory hallmarks of immune-mediated disease?

- Many animals with immune-mediated disease will have serum polyclonal hypergammaglobulinaemia and elevation in serum concentrations of IgG, IgM or IgA.
- Leukocytosis, in particular neutrophilia, is often a hallmark of immune-mediated disease.
- Lymphadenopathy is a common feature of immune-mediated disease and is a reflection of immune system activation.
- All cats with suspected immune-mediated disease should be screened for retroviral infection (FeLV, FIV).
- The serological changes compatible with immune-mediated disease are often very specific for the disease process. By contrast, some serological changes are less disease specific
- The revolution in molecular diagnostics has ready applicability to diagnosis of immune-mediated disease.