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IMMUNOLOGICAL ASPECTS OF CANINE ATOPIC DERMATITIS

Atopic dermatitis (AD) is a genetically predisposed inflammatory and pruritic allergic skin disease with characteristic clinical features. Canine AD (cAD), sharing several characteristics with human AD, is one of the most common skin diseases occurring in dog with the history of pruritus and recurrent skin or ear infection. The prevalence of AD as established in canine populations varies between 3-15% depending amongst others on breed, geographical area and survey method.

The clinical signs are diverse and vary upon age of onset, breed predispositions and breed-specific phenotypes, sex predisposition, seasonality, anatomical sites, and primary or secondary lesions. cAD has prolonged impact on animal health and welfare, and most treatments are aimed at alleviating pruritic symptoms. The disease is associated with IgE antibodies most commonly directed against environmental allergens, indicating a prominent Th2 skewed immune response. During the chronic phase of the disease also other immune responses are seen, such as Th1 or Th17 responses.

Although the exact pathogenesis is still subject of debate it is clear that both skin barrier function and the faulty immune regulation play an important role in AD. Some of the fundamental factor important in AD pathogenesis and diagnostic (im) possibilities in clinical practice will be discussed.