CLINICAL, HISTOLOGICAL AND IMMUNOLOGICAL CHARACTERISTICS OF NEUMANN-TYPE PEMPHIGUS VEGETANS IN A DOG

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SIGNALMENT
A 4 year old male greater Swiss mountain dog

HISTORY
A three months duration of mildly pruritic dermatitis that was characterized by crusts distributed over the right axilla and inguinal regions. Over the two following months, the dermatitis progressed and involved the trunk and ear pinnae. Anal, prepuce and oral mucosae developed erosive lesions.

CLINICAL FINDINGS
The dog is in good general condition with a mild hyperthermia 39,8°C.

DERMATOLOGICAL FINDINGS
The dermatological lesions were generalized but more severe over the head, the ear pinna, the ventral part of the thorax, the groin and the axillae. Lesions consisted of diffuse generalized erythema, scaling, follicular casts, hyperkeratotic papules and verrucous plaques. Papules, crusts, erosions and ulcerations covered the ear pinnae (Fig 1). The ventral aspect of the feet was erythematous. A mild purulent exsudate was observed in the ear canals. Erosions and ulcerations were observed on the anal mucosae, the prepuce and the hard palate (Figs 2, 3, 4). Small vesicles were seen on the lips.

DISCUSSION:
The disease described herein met all criteria used for the diagnosis of pemphigus vegetans (Neumann-type) in humans: 1) Clinical Signs: presence of oral non infectious erosions, cutaneous flaccid blisters that erode easily with progressive intractable erosions and crusts; 2) Histopathology: suprabasal clefs and intraepidermal pustules with acantholysis; 3) Immunofluorescence: presence of skin-fixed and circulating IgG auto-antibodies that recognize epidermal keratinocyte membranes.

In conclusion, canine pemphigus vegetans (Neumann-type) is a rare variant of pemphigus that can be added to the four other variants identified in this species: pemphigus vulgaris (1975), pemphigus foliaceus (1977), pemphigus erythematosus (1980) and paraneoplastic pemphigus (1998).