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## DERMATOLOGIC NEOPLASTIC AND PARANEOPLASTIC DISEASES

Besides many others, epitheliotropic cutaneous lymphoma remains one of the most challenging cutaneous neoplasia in dogs and cats. The clinical symptoms can be confused with many other dermatological diseases. In general four clinical presentations are described, which can occur on their own or can develop in any possible combination:

- 1) generalized intense erythema with scaling and pruritus (exfoliative erythroderma),
- 2) mucocutaneous erythema, infiltration, depigmentation and ulceration,
- 3) solitary or multiple cutaneous plaques and nodules,
- 3) infiltrative and ulcerative oral mucosal disease.

In addition footpads can also be affected by hyperkeratosis, ulceration or depigmentation. Peripheral lymph nodes are often also enlarged. The prognosis is grave, the average survival time is 5 to 10 months. CCNU (Lomustine®) is considered for use as first-line single agent therapy. It is often combined with prednisolone in order to control pruritus. Prednisolone alone can also be used as palliative treatment.

In contrast to cutaneous neoplasia, a paraneoplastic syndrome is defined as a disease or symptom that develops distant from the site of a tumour. It is caused by the presence of the tumour, but it is not due to the local presence of neoplastic cells. In cats and dogs some well-documented paraneoplastic skin diseases have been recognized:

- 1) Feline paraneoplastic alopecia. The primary cause for this characteristic skin disease is usually a pancreatic adenocarcinoma. In combination with excessive grooming the main clinical features include profound hair loss, usually starting on the abdomen, thorax and legs, before generalizing. The hairs are very easy to epilate and the underlying skin has a peculiar and visually distinctive smooth and shiny skin. Lesions evolve rapidly over several months and metastasis to liver and lungs are very common. Therefore most cats die or are euthanized within a month of diagnosis.
- 2) Feline thymoma-associated exfoliative dermatitis. In affected cats, besides systemic signs, the thymoma leads to the development of severe exfoliation and crusts mainly affecting the pinnae, head and neck, before it becomes generalized. Early diagnosis and removal of the tumour leads to complete regression of clinical signs.
- 3) Canine superficial necrolytic dermatitis (SND)/metabolic epidermal necrolysis (MEN). In these cases either a glucagon-producing pancreatic endocrine tumour or a metabolic hepatopathy lead to increased hepatic metabolism of amino acids with or

without accompanying diabetes mellitus. This leads clinically to hyperkeratotic, crusty lesions, including erosions, ulcerations and alopecia, affecting mainly the paw pads, mucocutaneous junctions and pressure points. Secondary infection is common. The prognosis is poor.

Other known paraneoplastic syndromes include sertoli cell tumour-associated skin disease, canine nodular dermatofibrosis and canine paraneoplastic pemphigus.

### References

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