FELINE PEMPHIGUS FOLIACEUS

PEMPHIGUS FOLIACEUS IS A RARE autoimmune disease in cats accounting for less than 1% of the author's skin cases. It is, nevertheless, considered to be the most common autoimmune disease of the skin seen in both dogs and cats.

Autoantibodies attack a component of the adhesion molecules on keratinocytes, leading to lack of intercellular cohesion in the stratum spinosum or subcorneal level of the epidermis (Hnilica and Patterson, 2017; Paterson, 2008).

Clinical signs
- No age, breed or sex predilection. Cases have been seen in cats less than a year of age and in those more than 16 years.
- Crusting lesions are typical, particularly of the nose, face and pinnae (Figure 1).
- Lesions may progress ventrally, often surrounding the nipples.
- A frequent and unique feature is a sterile paronychia, which may exhibit a thick caseous discharge (Figure 2).
- Hyperkeratosis of the footpads is sometimes present.
- Fever, anorexia, lymphadenopathy and depression may be observed.

Figure 1. Marked crusting lesions in the pinna of a five-year-old female Siamese cat with pemphigus foliaceus.

Figure 2. Paronychia in a case of feline pemphigus foliaceus. There is a typical caseous discharge visible.

Differential diagnosis
- Bacterial paronychia.
- Dermatophytosis.
- Food allergy.
- Ectoparasitic infestation.
- Food allergy.
- Atopy.
- Facial dermatitis of Persian cats.

Figure 3. Cytological specimen, obtained by an impression smear, in a case of pemphigus foliaceus, demonstrating an acanthocyte surrounded by non-degenerate neutrophils with no bacteria visible. pp245-257. Elsevier, 2017.

Figure 4. The Siamese cat depicted in Figure 1 following prednisolone treatment. In this case there was a rapid response, with remission in three weeks.

Diagnosis
- History and physical examination.
- Cytological examination of primary lesions or nail bed exudate often reveals acanthocytes (detached keratinocytes formed as a result of acantholysis) surrounded by non-degenerate neutrophils (Figure 3). Histopathological examination. Sub-corneal pustules containing acanthocytes and non-degenerative neutrophils are diagnostic. In both histopathological and cytological examinations, bacteria are usually absent.
- Bacteria, if detected, are considered secondary to the primary autoimmune disease.

Treatment
- In many cases, cats respond well to glucocorticoids. Of these the first choice is prednisolone (2-2.5mg/kg by mouth q12-24 hours) (Figures 1 and 4). Prednisolone was very successful as monotherapy in a series of cases (Simpson and Burton, 2013).
- Dexamethasone (0.1-0.2mg/kg by mouth q12-24 hours) may be used if the case does not respond to prednisolone (Hnilica and Patterson, 2017; Paterson, 2008).
- Successful treatment with cyclosporine has been reported (Irwin and others, 2012).
- Other drugs such as triamcinolone and chlorambucil are also reported to be effective (Hnilica and Patterson, 2017).

A percentage of cats will be cured and require no further treatment. In those that are not cured and treated with glucocorticoids, the aim will be to find the lowest possible dose that maintains remission and give the treatment on alternate days or less.

References

LUMBRY Park Veterinary Specialists, a small animal referral hospital in Alton, Hampshire and part of the CVS Group, has announced a partnership with the Evelina London Children’s Hospital to promote the concept of “One Health”. The partnership is the result of the experience of Lambry Park’s clinical director, veterinary cardiologist Dr Luca Ferasin, and his family around the birth of his second son, Mattia, who was born to Dr Ferasin’s wife Heidi, also a veterinary cardiologist, in March 2015, with multiple severe and life-threatening congenital heart defects.

He successfully underwent more than seven hours of open heart surgery at the Evelina hospital, part of Guy’s and St Thomas’ NHS Foundation Trust, when he was six days old. During this time, Dr Ferasin and his wife got to know Dr Caner Salih, a consultant paediatric cardiac surgeon and member of the team caring for Mattia.

Several weeks after Mattia’s surgery, Dr Salih acquired a French Bulldog puppy called Büdu and became concerned when a heart murmur was detected during his first visit to the vet. He asked Dr Ferasin to assess Büdu. He diagnosed him with the congenital heart condition perimembranous ventricular septal defect (VSD) – a large VSD was one of the multiple heart defects successfully corrected during Mattia’s life-saving surgery.

Commenting on the partnership, Dr Ferasin explained: “The related stories of Mattia and Büdu highlight the remarkable similarities between paediatric and small animal medicine, not only in terms of medical conditions, diagnostic techniques and therapeutic procedures, but also in terms of the psychological, emotional and social importance of the human-animal bond – in both directions.

“Our partnership [will] celebrate these similarities and promote the concept of ‘One Health’ in a bid to advance both human and veterinary medicine. By working closely with the Evelina London, we aim to contribute positively to the development of novel techniques, research and therapies in both our children and in companion animals. We’re planning a range of initiatives, including fundraising and collaborations with the clinical staff at Lumbry Park and the Evelina London, in particular with those in the cardiology and cardiac surgery departments. We’re also planning social events, such as advanced pet-therapy sessions for children undergoing treatment at the Evelina and their families, including direct interaction with our veterinary patients with similar conditions.”