Acquired Skin Fragility Syndrome
Case C1605643

Doug Smith DVM, Diagnostician
Clemson Veterinary Diagnostic Center

Permission granted only for viewing on SEVPAC website
Signalment

“Mary Jane”
4 year old
Female spayed
Domestic long haired cat

Permission granted only for viewing on SEVPAC website
The cat was initially presented with a cut on the head (date not reported but thought to be several weeks). The rDVM treated with antibiotics but the lesion progressed into a generalized dermatopathy. The clinical signs became profoundly thin and friable skin causing overt extreme pain to the patient. The cat was euthanized on 12-12-16 due to grave prognosis.
Gross findings

- Open skin lesions to the head and neck.
- All the skin on the head, neck and trunk is thin, friable and sloughs very easily.
- The subcutaneous tissues have multifocal to diffuse petechial to ecchymotic hemorrhages.
- The liver is pale to yellow and friable.
Histologic findings

- In the liver there is diffuse, moderate, hepatocellular degeneration, characterized by small coalescing to large round, intracytoplasmic empty vesicles that often lateralize and flatten the nucleus.

- In the skin, the epidermis is diffusely hyperkeratotic (orthokeratotic). Follicles are moderately hyperkeratotic and most lack hair shafts. The superficial dermis is diffusely pale, lacking collagenous stroma, leaving only occasional, prominent piloerector muscles. There are small numbers of inflammatory cells diffusely infiltrating the superficial dermis. Segmentally there are areas of dermal epidermal junction cleft.
Morphologic diagnosis

- **Skin**: diffuse, severe hyperkeratosis and epidermis atrophy; diffuse, severe dermal collagen loss.
- **Liver**: Moderate to severe diffuse hepatic lipidosis.
Diagnosis

- Acquired Skin Fragility Syndrome (presumed)
- Hepatic Lipidosis
Pathogenesis

- The majority of diseases resulting in feline skin fragility are acquired, but the pathogenesis of this rare syndrome is unknown.
- It is most commonly associated with such conditions as iatrogenic or naturally occurring hypercortisolism, diabetes mellitus, or extensive use of progestational compounds.
- Spontaneous hypercortisolism is responsible for 50% of cases. Iatrogenic hypercortisolism can cause skin fragility but only after prolonged exposure to topical/systemic steroids.
- Cholangiocarcinoma and hepatic lipidosis may be major factors in the etiology.
References

- Skin diseases of the dog and cat; Gross, Ihrke, Walder, Affolter; 2005; pgs 389-391
Acknowledgements

- Joseph Hill DVM, PhD, DACVP, Lab Director
- Guillermo Rimoldi, DVM, DACVP, case pathologist
- Fran Pearsall, Histology Technician
- Jess Sharpe BS, Necropsy Technician
- Boyd Parr DVM, State Veterinarian
Questions ???

Permission granted only for viewing on SEVPAC website