

Case of the Month July 2026

A 1.5-year-old neutered male European Shorthair cat presented with solitary, well-demarcated, alopecic, raised, thin-walled, fluctuant, fluid-filled lesions located over and slightly distal to the hocks. The lesions measured approximately 2–3 cm in diameter, had a verrucous pink surface, and the surrounding haired skin was unremarkable. According to the owner, the lesions had been present for approximately 1–3 months. Additionally, a solitary alopecic, hyperkeratotic, solid plaque measuring approximately 1–2 cm in diameter was present on the dorsal antebrachium. The owner reported frequent licking of all lesions. Wood's lamp examination was negative, no ectoparasites were identified, and cytologic examination yielded no significant findings. The patient had received corticosteroid therapy within 14 days prior to biopsy collection with minimal clinical improvement. A biopsy specimen from the right hindlimb lesion was submitted for histopathologic examination.

Figure 1.



Figure 2.



Figure 3. H&E. 2x magnification.

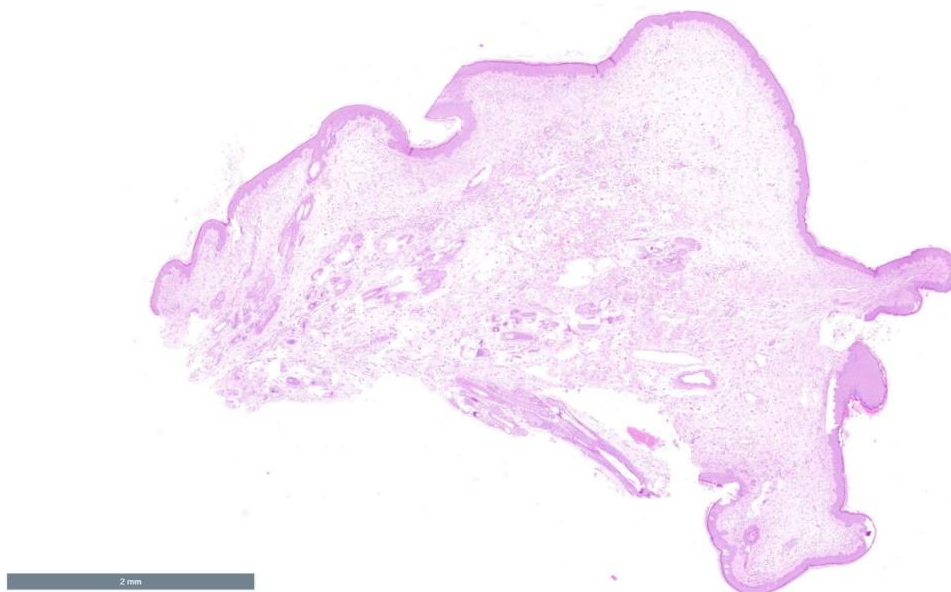


Figure 4. H&E. 10x magnification. H&E. 40x magnification

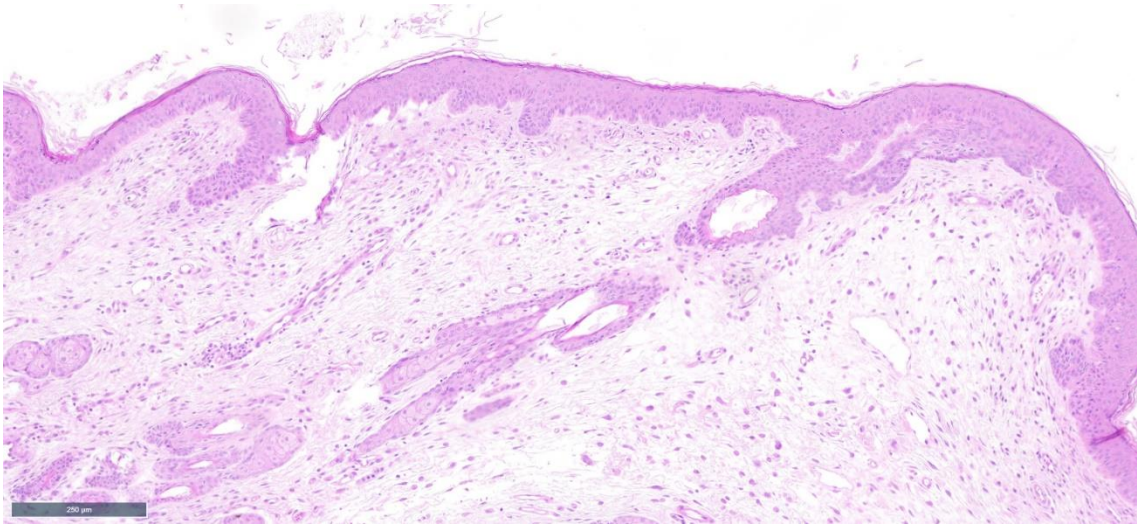


Figure 5. H&E. 40x magnification.

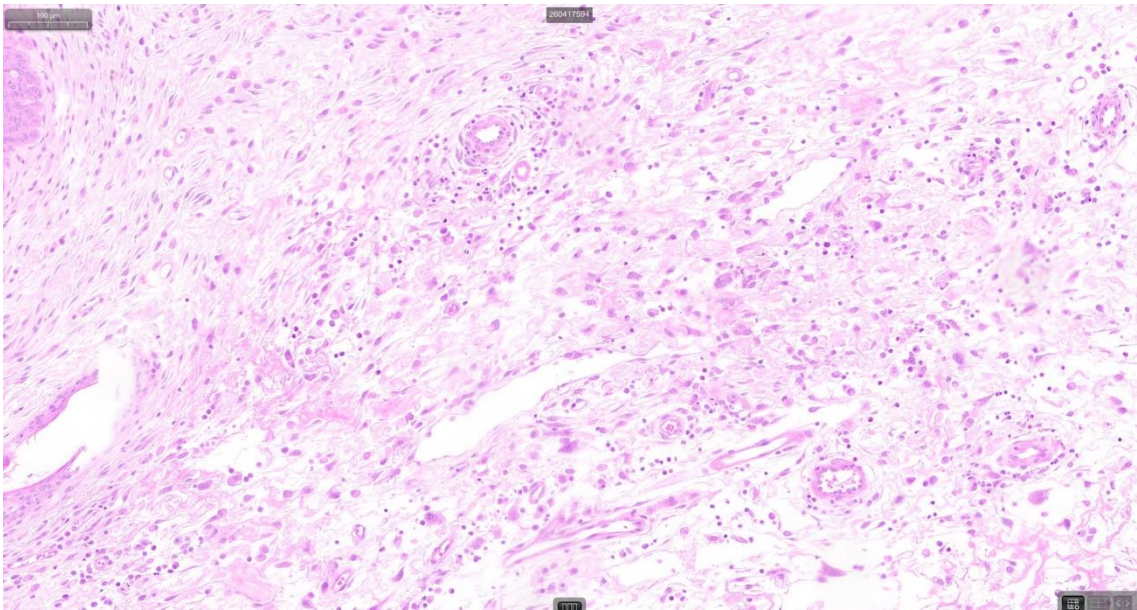
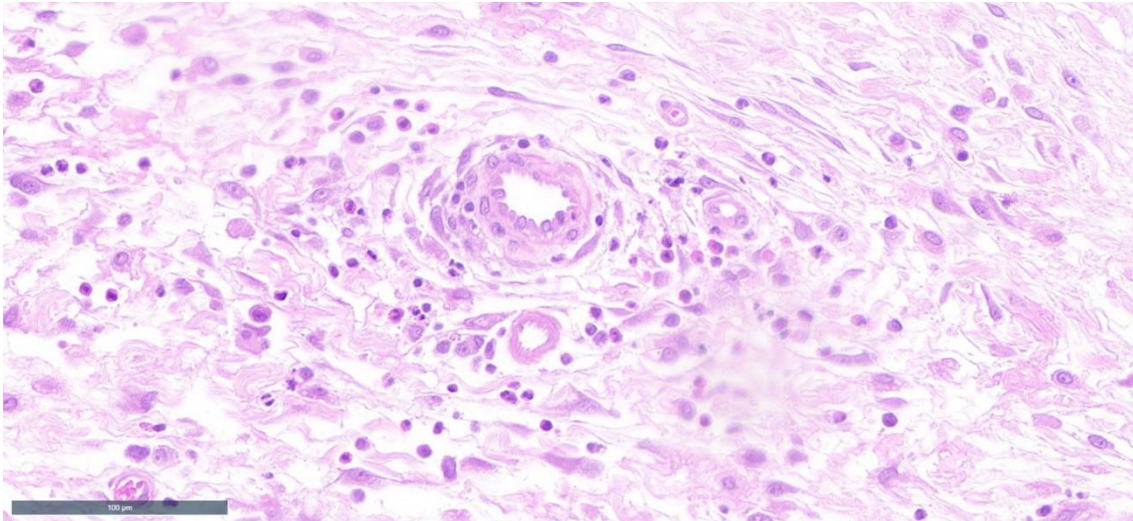


Figure 6. H&E. 40x magnification.



Which of the following is the most likely diagnosis?

- A. Localized cutaneous mucinosis
- B. Hygroma**
- C. Lymphangioma
- D. Callus

Histopathologic description

The specimen corresponded to a superficial biopsy containing superficial and mid dermis only and representing one of the verrucous projections identified macroscopically. The epidermis covering the lesion was moderately thickened due to hyperplasia of the stratum spinosum that extended into the follicular infundibulum. At the surface, there was mild orthokeratotic hyperkeratosis of the lamellar type. The dermis was expanded and partially replaced by loosely arranged fibrous connective tissue containing plumped reactive fibroblasts and marked edematous fluid that separated collagen fibers and laterally displaced hair follicles and adnexal structures. Additionally, there were mildly increased capillary profiles lined by reactive endothelium and surrounded by low numbers of lymphocytes, plasma cells, and fewer neutrophil and mast cells. Multifocally, there were scattered mildly dilated lymphatic vessels. Occasionally, capillaries had intraluminal marginated neutrophils (leukocytosis).

Morphologic diagnosis

Verrucous dermal and epidermal proliferation with marked edematous granulation tissue, mild acanthosis, and orthokeratotic hyperkeratosis (consistent with hygroma).

Comments

Clinicopathologic correlation of these bilateral hock lesions, characterized by fluid-filled, pocket-like, and fluctuant proliferations composed of edematous granulation tissue supports the diagnosis of hygromas. Unfortunately, no biopsy was done in the forearm lesion; however, the clinical appearance and the dorsal location precluded the same diagnosis for this lesion. Histologically, the examined specimen was very superficial and did not include the deeper fluid-filled cavitory lesions typically described in hygromas. Nevertheless, the marked dermal edema and granulation tissue formation, together with the characteristic gross appearance and localization over the bony prominences of the hocks strongly supports this diagnosis. It is presumed that the superficial verrucous projections represent secondary reactive proliferations associated with pressure and edema originating from a deeper cavitory lesion. Similar verrucous gross lesions classified as hygromas have been described in the dog over elbows and hocks. Hygromas are rarely described in the literature in cats.

The differential diagnoses considered were a lymphangioma, such as lymphangioma circumscriptum described in humans, localized cutaneous mucinosis, and a callus. Lymphangiomas have superficial dense proliferation of large, empty lymphatic vessels, a feature not identified in this case. Localized cutaneous mucinosis would be expected to contain abundant basophilic mucinosis matrix deposition and gross mucinous vesicles, which were not detected in this case either. A callus, grossly, can look very similar to the lesions described here, but calluses are lichenified, solid plaques to nodules, with marked hyperkeratosis, fibrosis and often with secondary deep pyoderma and follicular cysts, changes not detected in this case.

A hygroma is a false and acquired bursa that develops subcutaneously over bony prominences such as the lateral aspect of the elbow, the greater trochanter of the femur, and the tuber coxa, particularly in giant breeds dogs. Hip dysplasia in dogs may predispose to elbow hygromas, as affected animals develop an abnormal recumbency posture that places excessive pressure on the olecranon in an attempt to spare the hips. Normally, pressure induces the formation of a protective callus; however, in some animals, persistent pressure, decubital ulceration, or recurrent hemorrhage may eventually lead to hygroma formation.

Grossly, the lesion consists of a variably sized cystic cavity in the subcutis separated from the skin by loose connective tissue. The wall of the hygroma is composed of dense connective tissue and may exhibit a smooth or villous inner lining. The contents are typically mucinous and range from yellow to red depending on the degree of hemorrhage. Histologically, the wall is composed of granulation tissue of variable maturity.

In cats, the literature regarding hygromas is extremely limited. Most reported cases are located at the elbow, where lesions develop secondary to repeated trauma in areas with minimal soft tissue between the skin and the underlying bone. Complications associated

with hygromas include ulceration and secondary infection. Grossly, one of the lesions in this case also presented ulceration.

In the present case, the involvement of both hindlimbs and the young age are unusual findings. It was not possible to exclude underlying conditions in this case, such as Ehlers-Danlos, which could induce dermal laxity over bony prominences, or congenital orthopedic abnormalities inducing increased pressure over pressure points. In this case, it is hypothesized that repeated pressure over hard surfaces and/or prolonged recumbency over bony prominences may have contributed to hygroma formation, with a possible underlying predisposition that was not detected in this study. The referring veterinarian reported some improvement of the lesions after corticosteroid therapy, possibly by reducing inflammation, edema, and tissue remodeling. However, full regression of the lesion was not achieved so far.

References

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