

Report of mammary fibroepithelial hyperplasia in a DSH cat

Annahita Rezaie^{1*}, Soroosh Sabiza², Alireza Ghadiri³, Mohammad Asadi irae⁴
and Anahita Memar⁵

¹ Associate Professor, Department of Pathobiology, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

² Assistant Professor, Department of Clinical Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

³ Professor, Department of Clinical Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

⁴ Resident of small animal internal medicine, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

⁵ DVM Student, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran

Received: 09.02.2021

Accepted: 09.05.2021

Abstract

Fibroepithelial hyperplasia is a physiological change in mammary glands characterized by a significant increase in the size of one or more mammary glands. The disease is commonly seen in young cats and may also be seen in older female ones. This report describes the clinical, radiographic, and histopathologic features of a cat with fibroepithelial hyperplasia. A 4-year-old female cat weighing 2.7 kg with a large mass below the abdomen was referred to the veterinary hospital of Shahid Chamran University of Ahvaz. After clinical examination and radiological evaluation, she underwent surgery and the isolated mass was sent to the pathology department. The mass was solid and was observed in several lobules at the incision with a walnut-like appearance. Under microscopic examination, proliferation of mammary duct epithelial cells and formation of new tubules were significant. Also, a large amount of connective tissue was observed around the formed tubes. Empty spaces which indicated edema were observed between the connecting strands. It should be noted that no malignant changes were observed. In general, according to clinical, radiological and microscopic characteristics, fibroepithelial hyperplasia was diagnosed. The pathophysiology of fibroepithelial hyperplasia of the mammary gland is not well understood, but most likely sexual hormone changes play roles in etiology of fibroepithelial hyperplasia.

Key words: Fibroepithelial hyperplasia, Physiological change cat, Mammary gland

* **Corresponding Author:** Annahita Rezaie, Associate Professor, Department of Pathobiology, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran
E-mail: a.rezaie@scu.ac.ir



© 2020 by the authors. Licensee SCU, Ahvaz, Iran. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0 license) (<http://creativecommons.org/licenses/by-nc/4.0/>).

References

- Burstyn, U. (2010). Management of mastitis and abscessation of mammary glands secondary to fibroadenomatous hyperplasia in a primiparturient cat. *Journal of the American Veterinary Medical Association*, 236(3), 326-329.
- Giménez, F., Hecht, S., Craig, L. E., & Legendre, A. M. (2010). Early detection, aggressive therapy: optimizing the management of feline mammary masses. *Journal of Feline Medicine and Surgery*, 12(3), 214-224.
- Hayden, D. W., Johnston, S. D., Kiang, D. T., Johnson, K. H., & Barnes, D. M. (1981). Feline mammary hypertrophy/fibroadenoma complex: clinical and hormonal aspects. *American Journal of Veterinary Research*, 42(10), 1699.
- Hayes, A. A., & Mooney, S. (1985). Feline mammary tumors. *Veterinary Clinics of North America: Small Animal Practice*, 15(3), 513-520.
- Leidinger, E., Hooijberg, E., Sick, K., Reinelt, B., & Kirtz, G. (2011). Fibroepithelial hyperplasia in an entire male cat: cytologic and histopathological features. *Tierarztl Prax Ausg K Kleintiere Heimtiere*, 39(3), 198-202.
- MacDougall, L. D. (2003). Mammary fibroadenomatous hyperplasia in a young cat attributed to treatment with megestrol acetate. *The Canadian Veterinary Journal*, 44(3), 227.
- Millanta, F. A., Calandrella, M., Bari, G., Niccolini, M., Vannozzi, I., & Poli, A. L. E. S. S. A. N. D. R. O. (2005). Comparison of steroid receptor expression in normal, dysplastic, and neoplastic canine and feline mammary tissues. *Research in Veterinary Science*, 79(3), 225-232.
- Payan-Carreira, R. (2013). Feline mammary fibroepithelial hyperplasia: a clinical approach. *Insights from Veterinary Medicine. InTechOpen*, 215-232.
- Pereira, P. D., Carvalheira, J., & Gärtner, F. (2004). Cell proliferation in feline normal, hyperplastic and neoplastic mammary tissue—an immunohistochemical study. *The Veterinary Journal*, 168(2), 180-185.
- Wehrend, A., Hospes, R., & Gruber, A. D. (2001). Treatment of feline mammary fibroadenomatous hyperplasia with a progesterone-antagonist, 148(11), 346-7.