



## Spontaneous breast adenomyoepithelioma in young female Sprague Dawley rats

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### ABSTRACT

Spontaneous breast tumors such as adenomyoepithelioma (AME), are generally common in aging > 18 months, Sprague Dawley (SD) female rats and are the second most common cause of death. Breast tumors are generally subdivided into simple or complex tumors based on the presence of glandular epithelial cells, myoepithelial cells, or both cell types.

AME tumors are extremely rare in young untreated rats, < 12 months old. In this study, we report the presence of spontaneous AME in three different female SD rats which were used as colony breeders.

Histological, blood and PET scan analysis indicated that the malignant masses, were located in the sub cutis of the inguinal region, the cervical region and the abdominal region, respectively, with no further metastases in other organs. They were composed of tubular/lobular structures with epithelial and myoepithelial components. The histopathological findings closely resembled those of human AME tumors.

We believe this is a rare incident of spontaneous AME appearing in three different young Sprague Dawley rats in the same colony. Congenital factors affecting the appearance of these tumors should be considered while further tests will be needed for the screening of the future breeders.

### REFERENCES

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