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## **MAMMARY GLAND DEVELOPMENT IN DOGS AND CATS IN RELATION TO THEIR SEXUAL CYCLE**

**Alexandra NEAMȚU (CIUBOTARIU)<sup>1</sup>, Ștefan G. CIORNEI<sup>1</sup>, Petru ROȘCA<sup>1</sup>,  
Dan G. DRUGOCIU<sup>1</sup>**

e-mail: alexandra.neamtu21@gmail.com

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### **Abstract**

The mammary gland is a modified sweat gland specialized in milk secretion, whose development is synchronized with the sexual function, being directly influenced by the stages of the sexual cycle in both canids and felines. Knowledge of morphology and physiology is essential for a correct approach of the mammary diseases, an important pathology affecting two categories: the adult female and the newborns.

There are numerous controversies in the literature regarding the terminology and duration of the dog and cat sexual cycle, leading to the existent variability of the information. However, for the bitch it is unanimously accepted that most canine breeds have two estrous periods per year, usually in spring and autumn. This period can be systematically divided into proestrus, estrus, luteal phase and anestrus. In this species, the proestrus and estrus periods are long and necessarily accompanied by a long luteal phase. These are then followed by anestrus, which is not influenced by the season, unlike the cat. The queen is a seasonally polyestrous animal, which in the absence of mating goes into estrus every 2-3 weeks throughout the breeding season. She will have repeated cycles in the breeding season, which will only be interrupted by gestation, pseudo-gestation or various ailments.

The aim of this review is to describe the estrus cycle in dogs and cats, and its connection with mammary gland development, a gland with unique growth due to the fact that the final stage of development is reached in the adult female only during gestation.

**Key words:** mammary gland, dogs, cats, estrus cycle

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