Evaluation of Long-Term Effects of the Gonadotrophin-Releasing-Hormone Antagonist Acyline on Domestic-Cat Growth

Priotto, Marcelo

, Faya, Marcela Inés

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Resumen

Acyline contraception has been described in cats, but few data are available on the drug's long-term effect on growth. The relevant data cover until puberty with no radiographic description. We investigated the radiographic parameters throughout bone growth in order to more completely determine the drug's safety. Thirteen male and 12 female cats were studied, with the kittens being randomly assigned to one of the following groups within the first 24 hours of birth: ACY, subcutaneous acyline, 33 µg/100 g, which injection was repeated weekly until age 3 months; or CO, untreated control. Body measurements were recorded weekly and radiographic parameters obtained from monthly radiographs of the antebrachium. In the ACY and CO male and female kittens, the body weight, withers height, and body length plus the age at the end of body

growth and radial growth remained similar throughout the study (P> .05). Both female groups finished radial growth before the males (P< .05). The ACY females evidenced a longer radial length between the eighth and 28th weeks (P< .05). All groups closed their proximal and distal physes within the normal ranges described for the species. The bone-cortex width was lower in the ACY vs. the CO animals at weeks 52 and 60 in the males and at weeks 24, 48, 52, and 56 in the females (P< .05) The transient greater radial length and lower bone-cortex thickness observed in the treated cats were compensated for at the end of growth with no adverse clinical effects being observed. In conclusion, acyline as a contraceptive did not evidence a permanent or severe effect on domestic-cat growth.

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