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Development of attraction to estrous females in male dogs.

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Abstract

In simultaneous choice tests male beagles were allowed to visit a caged female in estrus, or caged, spayed female not in estrus. Males were tested periodically from 1-3 to 22-24 months of age. The 3 subject groups were normal males (Group N), males castrated 4-7 days postpartum and injected with testosterone propionate (TP) until they were 3 months old (Group TPTC), and males castrated 4-7 days but given no hormone treatment, i.e., untreated castrates (Group UC). A statistically reliable preference for visiting the estrous rather than the nonestrous female first appeared in N males at 4-6 months, in TPTC males at 1-3 months, and in UC males at 10-12 months. In N males attraction to the estrous female (measured by time spent visiting her) increased progressively from 4-6 to 16-18 months. In the same period concentration of plasma testosterone rapidly increased, reached a peak at 10-12 months, and then declined. UC males exhibited no significant increase in attraction to the estrous female from 10-12 months (when a preference first appeared) to 22-24 months. They then received 10 injections of TP after which their visiting time to the estrous female was equal to that of N males. TPTC males exhibited a precocious preference for the estrous female at 1-3 months, while they were receiving TP, and there was no decrease in strength of attraction in the following 9 months during which time no hormone was administered. Between 10-12 and 13-15 months, still without exogenous androgen, visiting to the estrous female began to increase and continued to do so until 19-21 months.