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[\[PDF \(256K\)\]](#) [\[References\]](#)**Long-lasting effects of yohimbine on the ejaculatory function in male dogs**Akihiko YONEZAWA¹⁾, Masaru YOSHIZUMI¹⁾, Mamoru EBIKO¹⁾, Toshiyasu AMANO²⁾, Yukio KIMURA³⁾ and Shinobu SAKURADA¹⁾

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ABSTRACT

Previous studies have demonstrated that systemic administration of a low dose of the alpha2-adrenoceptor antagonists stimulates the ejaculatory response of male dogs, when this function is analyzed using the amount of ejaculated semen in response to genital stimulation. The present study was designed to further examine the features of the stimulatory effects of the alpha2-adrenoceptor antagonists on ejaculation, especially the duration of action. Treatment with yohimbine (0.1 mg/kg, i.p.) to male dogs, at 0.5, 1, 3, or 5 h before the testing, produced a significant stimulatory effects on the ejaculatory response elicited by manual penile stimulation; the amount of ejaculated semen was increased and the onset of ejaculation was shortened following each treatment. However, such effects were not observed in the treatment with yohimbine at 8 and 24 h before the testing, indicating that the ejaculatory stimulation induced by yohimbine lasted for a relative long period. By contrast, the stimulatory effects of RX821002 (0.1 mg/kg, i.p.), a selective alpha2-adrenoceptor antagonist, on ejaculation were observed only for 1 h after administration. To determine the contribution of the alpha2-adrenoceptor blockade for the long-lasting effect of yohimbine, we tested whether yohimbine can prevent the ejaculatory inhibition induced by clonidine, an alpha2-adrenoceptor agonist. The ejaculatory inhibition (a decrease in the amount of ejaculated semen and a delay onset of ejaculation) elicited by clonidine (0.05 mg/kg, i.p.; 1 h before testing) was completely blocked by pretreatment with yohimbine at 1 or 5 h before the testing, whereas the pretreatment with the drug at 24 h before the testing did not affect the clonidine-induced ejaculatory inhibition. These results indicate that

yohimbine-induced ejaculatory stimulation is continued for a relative long period (at least 5 h after administration), and this long-lasting effects may be related to the alpha2-adrenoceptor blocking property of the drug.

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