

Summary of the DVSc thesis No: 12169, Faculty of Veterinary Medicine, Urmia University.

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Title of thesis: Comparison of sedative and cardiovascular effects of combination of acepromazine-clonidine versus acepromazine-xylazine in horse.

Summary:

Agonists of alpha-2 and phenothiazines are categorized as sedatives and tranquilizers. These agents are used as chemical restraints and are premedicated in small and large animals. The present cross-over study aimed to compare the effects of the combination of xylazine-acepromazine and clonidine-acepromazine on sedation, physiological parameters, echocardiographic parameters, and electrocardiographic parameters in horses. The animals were assigned to two treatment protocols. In Protocol I, the animals received intravenously 1 mg/kg of xylazine hydrochloride in combination with acepromazine (0.05 mg/kg) as a bolus loading dose. In Protocol II, the animals received 0/002 mg/kg of clonidine intragastrically and 60 minutes after receiving 0.05 mg/kg of acepromazine intravenously. Head height above the ground (HHAG), response to stimuli include visual stimulation with opening an umbrella in front of the horse, response to auditory stimulation with clapping behind of the animal, response to ear touch, response to compression on a coronary band of thoracic and pelvic limbs, Postural instability, Observe the stationary animal and then forcefully pushing it laterally, heart rate, respiratory rate, temperature, cecal motility in 3 minutes, MAP, echocardiographic indices and electrocardiographic indices were recorded. In the first group, measurements were recorded 5 min before and 5, 15, 30, 60, and 90 min after the administrations. In the second group, measurements were recorded 5 min before clonidine injection, 55 min after clonidine injection and then 5, 15, 30, 60, and 90 min after acepromazine injection. No significant differences were observed between two treatment protocols in terms of sedation, physiological parameters, echocardiographic parameters and electrocardiographic parameters. The combination of Clonidine-Acepromazine may serve as an anesthesia option in horses and could be comparable to Xylazine and Acepromazine. Further investigations with larger sample sizes and a detailed examination of the effects of this medication are needed, which contribute to the advancement of safe and effective anesthesia.

Keywords: Sedation, clonidine, xylazine, acepromazine, horse.