

## ABSTRACT.

A study was carried out to compare the effects of lumbosacral epidural ketamine, xylazine and their combination on body temperature in dogs. Fifteen healthy dogs were randomly assigned to three groups of five animals each. The first group was injected with 5% ketamine at 2.0 mg/kg body weight, the second with 2% xylazine at 0.6 mg/kg body weight and the third with the drug combination of ketamine and xylazine at 1.0 and 0.3 mg/kg respectively, in the same syringe. Changes in rectal temperature of the dogs were recorded over a 4-hour monitoring period. Significant ( $P < 0.05$ ) decline in rectal temperature was observed in all the three groups. The ketamine-xylazine drug combination was associated with a decrease in mean rectal temperature of up to 1.9° C; xylazine, 1.62 ° C and ketamine, 1.1 ° C. At the end of the 4- hour monitoring period, rectal temperature of dogs in the ketamine group remained significantly lower as compared to baseline values. Dogs injected with ketamine-xylazine had significantly ( $P < 0.05$ ) lower mean rectal temperature when compared to dogs injected with the individual drugs. Shivering was a common side effect in 60% of dogs in the xylazine group and 80% of those in the ketamine-xylazine group. It was concluded that epidural ketamine, xylazine and their combination caused significant decline in body temperature even in the absence of any surgical manipulation. In clinical setting, this has both morbidity and mortality implications, especially in small animal surgical patients, in the post-operative period.