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Influence of dosage and chemical restraints on feline excretory urography

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ABSTRACT

Three series of trials involving 10 domestic short-haired cats were carried out to determine the influence of dosage of contrast media or type of chemical restraint on feline excretory urography. The 1st series (group A) involved 5 cats sedated with 2.0 mglkg intramuscular (i.m) injection of 2 % xylazine and receiving 800 mglkg of 76 % meglumine diatrizoate (urografin). The 2nd series (group B) involved another 5 cats sedated with 2.0 mglkg (i.m) injection of 2 % xylazine and receiving 1200 mglkg of 76 % urografin. The 3rd series (group C) involved the repeat urography of the group B cats but sedated with 15 mglkg (i.m) injection of 5 % ketamine hydrochloride. Ventrodorsal radiographs were obtained immediately, 5, 15 and 40 minutes after the injection of 76 % urografin. Scores were assigned to nephrographic opacification as described in the literature. The heart rates, respiratory rates and rectal temperatures of the cats were also determined before sedation, after sedation, immediately after the injection of 76 % urografin and at IS-minute intervals over a period of 60 minutes. In this study, there were significant differences *(P* < 0.05) in the nephro- graphic opacification scores between the group A and group B cats at times a and 40 minutes post-dministration of urografin. Group A cats had good initial nephrographic opacification which faded later while the nephrographic opacification of group B cats progressively increased. Similarly, nephrographic opacification was significantly *(P* < 0.05) higher in the xylazine-sedated cats (groups A and B) than the ketamine-sedated cats (group C). However, there were no significant differences *(P* > 0.05) in heart rates, respiratory rates and rectal temperatures between the 3 groups of cats. It was therefore concluded that increasing the dosage of urografin above 800 mglkg in cats does not provide additional beneficial effects on the nephrograms produced. Xylazine sedation was observed to produce better nephrographic opacification, however, with delayed nephrographic fading compared to ketamine sedation.

Keywords:
cat, chemical restraint, dosage, excretory urography, ketamine, urografin, xylazine.