

Intraosseous Urography by Iodixanol in Persian Squirrels

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Abstract : Excretory urography is used for morphologic and especially functional studies of the urinary tracts. There are many indications for excretory urography in humans and animals. Intravenous urography is the most practical method, other urography techniques were manipulated because of difficulties for finding veins in small size of the patients. At the best of times, the combination of small veins and abundant subcutaneous tissue make vascular access difficult or impossible, therefore, another methods of administration of contrast media is desired. This study was performed to evaluate the feasibility of intraosseous injection of iodixanol in providing a safe and diagnostic urogram in Persian squirrel. Fourteen hundreds mg iodine per kilogram body weight of iodixanol were injected subcutaneously over tibial tuberosity on ten clinically healthy adult Persian squirrels with no signs of urinary system disorder. Lateral and ventrodorsal radiographs were taken every 2 minutes until the pyelogram was finished. Intraosseous injection of iodixanol was successful to show nephrogram, pyelogram, uretrogram and cystogram clearly. There were no abnormal clinical signs after one week of experiments. Biochemical and hematological profiles were in normal ranges. It is concluded that intraosseous urography is an effective and reliable method for urography studies in squirrel. Microscopic examinations of the kidneys and the site of injection after one week were normal.

Keywords : intraosseous urography, iodixanol, Persian squirrel, morphologic

Conference Title : ICMBE 2015 : International Conference on Medical and Biomedical Engineering

Conference Location : Copenhagen, Denmark

Conference Dates : June 11-12, 2015