

## **MINIMALLY INVASIVE PERCUTANEOUS FLUROSCOPIC TECHNIQUE TO INJECT THE LUMBO-SACRAL DISK IN THE DOG: PRELIMINARY STUDY IN TWO DIFFERENT POSITIONINGS**

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Lumbo-sacral pathology is one of the most diffused degenerative spinal disease in small animal geriatric medicine.

Aim of the work is to evaluate two different approaches (lateral or sternal recumbency) for lumbo-sacral disk injection in the dog with a percutaneous minimally invasive technique under fluoroscopic guidance.

Ten dogs (2,8–25,6 Kg.) died for causes unrelated to this work were enrolled in the perspective study. Eight intervertebral lumbo-sacral disks have been injected with a gelatinous radiopaque compound. Two disks have been injected with an alcoholic radiopaque solution. The two different solutions were associated with methylene blue for the subsequent gross anatomic examinations. Five dogs have been positioned in lateral recumbency with the lumbo-sacral joint in neutral position, five dogs in sternal recumbency with the hind limbs extended cranially along the body and the lumbo-sacral joint flexed. The correct injection of the compounds within the disk was assessed by Computed Tomography (CT) and subsequent gross anatomic examination.

Lateral recumbency approach required less time of execution and minor attempts to reach the correct position of the spinal needle. In two cases leakage outside the disk was observed with one of them involving structures within the vertebral canal. The injected lumbo-sacral disks were successfully visible by CT, while necroscopy resulted satisfactory only in five patients.

Fluoroscopy could successfully be applied as a feasible modality to guide the percutaneous injection of the lumbo-sacral disk. Lateral recumbency approach resulted in an easily time-saving procedure that will probably be helpful in the future for delivering safely injectable therapeutic solutions, as in case of chemonucleolysis.

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