

❖ **GLOBAL TRENDS AND CHALLENGES IN ANIMAL HUSBANDRY AND VETERINARY MEDICINE**

Sources of innervation and distribution of nerves in the coxofemoral region in dogs

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Abstract

The purpose of work: In order to determine the anatomical- topographical contributions of the branches of the hip region nerves and their clinical involvement in the transmission of afferent and efferent nerve impulses, we performed a study that reflects the morpho functional organization of the anatomical formations, components of the coxofemoral joint in dogs, the origin and distribution of the nerves participating in the innervation of the regions of the canine pelvic limb, with the determination of the branches involved in the innervation of the joint capsule. The research was carried out on a corpse of a German Shepherd dog and three corpses of mixed dogs, respectively eight coxofemoral joints. The bodies of the dogs were taken from different veterinary clinics of the city of Chisinau. Results: The pelvic region and hind limbs were dissected using various morphological exploration techniques, to highlight the regional topography. The anatomical component parts were fixed in 10% formalin solution. To avoid inhalation of dangerous formalin vapors, a few days before the preparation, the preservation solution was changed according to B. Berne. The sources of innervation of the coxofemoral joint were highlighted by macroscopic and microscopic methods of fine anatomical dissection, according to V. P. Vorobyov. The research results demonstrate that the canine hip is innervated by the following nerves: N. femorales, N. obturatorius, N. gluteus cranialis, N. gluteus caudalis, N. ischiaticus, N. cutaneus femoris caudalis, and the joint capsule is innervated by the branches of the nerves: N femorales, N. obturatorius, N. gluteus cranialis and N. ischiaticus with the respective directions: cranioventral, caudoventral, craniolateral and dorsolateral. Branches of the N. gluteus caudalis were not observed to be involved in the innervation of the coxofemoral joint capsule. Conclusions: The data obtained provide veterinarians with valuable information about the topography and distribution of the nerve trunks, whilst the morphological and structural interpretation of the sources of innervation is of essential anatomical and clinical interest, as well as therapeutic interest in the case of dogs with hip dysplasia and arthrosis. The translation of the information into practice provides an analysis of the possibilities of reducing pain and possible surgical interventions in the region of the hip joint.

Keywords: Innervation, Pelvic limb, Dog, Coxofemoral joint.