

Article

<https://doi.org/10.61900/SPJVS.2023.04.13>

## **EFFECTS OF LUMBAR INTERVERTEBRAL DISC HERNIATION ON ADJACENT MUSCULATURE ON COMPUTED TOMOGRAPHY (CT) EXAMINATION**

**Claudiu Ionut VOICULEȚ<sup>1</sup>, Cristian-Ioan VĂLEANU<sup>1</sup>, Felix Daniel LUCACI<sup>1</sup>, Anamaria COSTIN<sup>1</sup>, Robert Emilian TIMOFTE<sup>2</sup>, Caroline-Maria LĂCĂTUȘ<sup>1</sup>, Sorin-Marian MĂRZA<sup>1</sup>, Robert Cristian PURDOIU<sup>1</sup> and Radu LĂCĂTUȘ<sup>1</sup>**

<sup>1</sup>*University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania*

<sup>2</sup>*University of Life Sciences 'Ion Ionescu de la Brad' Iași, Romania*

e-mail (first author): [claudiu-ionut.voiculesc@student-usamvcluj.ro](mailto:claudiu-ionut.voiculesc@student-usamvcluj.ro)

---

### **Abstract**

In the late 1800s Dexler used for the first time the term IVDD (Intervertebral disc disease), which was described as the presence of cartilaginous material in vertebral canal. Intervertebral disc herniation (IVD) refers to the part of the disc that is within vertebral canal.

The aim of the paper was to highlight the morphometric changes of the dorso-lumbar musculature occurring in dogs diagnosed with the presence of hyperattenuating material in vertebral canal by CT.

Thirteen dogs from varying breeds of dogs (French bulldog, Dachshund, Bichon, Pekingese) age from 2 to 8 years old, with hind limbs locomotory disease were scan with a Somatom Scope 16-slices CT scan. **Results:** Pronounced muscle contracture was seen on CT scan thus: 1,4 mm (<sup>+0,6mm</sup>) in Bichon on left multifidus muscle in the area of the protrusion, 1,6 mm (<sup>+ 0,6mm</sup>) in Dachshund on left multifidus muscle in the area of the protrusion, 2,1 mm (<sup>+ 3 mm</sup>) in Pekingese on left multifidus muscle in the area of the protrusion and 1,2 mm (<sup>+ 0,5 mm</sup>) in French bulldogs on the right multifidus muscle in the area of the protrusion.

An increased muscle contracture was seen in all patients in the area of the herniation.

**Key words:** herniation, ct scan, IVD

---