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犬腰骶神经根慢性压迫模型的建立及分子生物学分析 [点此下载全文](#)

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摘要:

目的: 制作犬腰骶神经根压迫的动物模型, 进一步探讨神经根压迫造成的根性疼痛及麻木的治疗方法。方法: 18只成年杂种犬, 均为雌性, 随机分成3组: 7 d组、14 d组和28 d组, 每组6只。应用长5 mm、直径3~4 mm的硅胶管植入右侧L6、L7及S1神经根下面, 造成压迫模型, 左侧作为自身对照侧。结果: 通过对压迫神经根及神经根节大体观、组织病理学和免疫组织化学的光学显微镜的动态观察, 可见神经根压迫后其有髓神经纤维数目减少和超微结构的改变, 如神经膜细胞胞质肿胀和细胞水肿、华勒变性、神经轴突脱髓鞘变等。结论: 神经根超微结构的改变是神经根失功能的病理形态学基础, 此模型更接近于腰椎间盘突出和椎间管狭窄对神经根的压迫, 为临床神经根性疼痛及麻木治疗的研究建立了可供参考的动物模型。

关键词: [神经根病](#) [压迫](#) [模型](#) [动物](#)

A canine model of chronic of lumbosacral nerve root compression: establishment and molecular biology analysis [Download Fulltext](#)

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Abstract:

Objective: To establish a canine model of lumbosacral nerve root compression, so as to search for treatment for radicular pain and numbness caused by nerve root compression. **Methods:** Eighteen male adult mongrel dogs were evenly randomized into 3 groups: 7 days group, 14 days group and 28 days group. A 5 mm long thick silica tube (diameter 3-4 mm) were implanted under right L6, L7 and S1 nerve root to establish the compression model; the left side served as self controls. **Results:** Dynamic observation with histopathology and immunohistochemical staining showed that, after the nerve root nerve root compression, the myelinated nerve fibers decreased and there was ultrastructure changes of the nerve fibers, such as Schwann cell cytoplasm swelling and edema, Wallerian degeneration, and demyelinated degeneration of axons. **Conclusion:** The ultrastructural changes of nerve root are the pathological basis of the function loss of the nerve root. The present model is more closer to the model of lumbar intervertebral disc herniation and stenosis of nerve root compression and it provides a basis for treatment of compression caused radicular pain and numbness in clinic.

Keywords: [radiculopathy](#) [compression](#) [model](#) [animal](#)

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