

Transforaminal Ligaments of the Lumbar Foramina: An Anatomic Study

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Abstract : The anatomical existence of transforaminal ligaments has been studied widely. The crucial anatomic study of these structures describes the transforaminal ligaments as an anomalous structure. The ligaments associated with the intervertebral foramen were classified in the external, intraforaminal and internal foraminal ligaments. The external ligaments are the most frequently reported type of transforaminal ligaments in adult spine. The purpose of this study was to examine the appearance of the ligaments within the external space of the intervertebral foramen in adult cadavers. External transforaminal ligaments branch out forward from the root of the transverse process toward the vertebral body with superior, transverse and inferior directions. The ligament detected in the study was different from the other reported descriptions of L1 foraminal ligaments. This ligament extends from the root of the pedicle to the inferior border of the vertebral body below the level of the disc and forms the compartment through which pass the ventral root of the spinal nerve and a small branch of the spinal artery. The results of this study show that the external ligaments can be clearly macroscopic visualized, and it is very important to have prior knowledge of the cadaveric specimens, to identify these structures. The presence of these ligaments is clinically important. These ligaments could be the cause of nerve root compression and the low back syndrome.

Keywords : anatomy, ligaments, lumbar spine, spinal nerve roots

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