Spetzler et al. classification

Extradural-intradural.

Intradural.

Intramedullary.

Intramedullary-Extramedullary.

Conus medullaris.

Based on the experience of the senior author (R.F.S.) in the treatment of more than 130 spinal cord vascular lesions and based on a thorough review of the relevant literature, the authors propose a modified classification system for spinal cord vascular lesions. Lesions are divided into three primary or broad categories: neoplasms, aneurysms, and arteriovenous lesions. Neoplastic vascular lesions include hemangioblastomas and cavernous malformations, both of which occur sporadically and familially. The second category consists of spinal aneurysms, which are rare. The third category, spinal cord arteriovenous lesions, is divided into arteriovenous fistulas and arteriovenous malformations (AVMs). Arteriovenous fistulas are subdivided into those that are extradural and those that are intradural, with intradural lesions categorized as either dorsal or ventral. Arteriovenous malformations are subdivided into extradural-intradural and intradural malformations. Intradural lesions are further divided into intramedullary, intramedullary-extramedullary, and conus medullaris, a new category of AVM. This modified classification system for vascular lesions of the spinal cord, based on pathophysiology, neuroimaging features, intraoperative observations, and neuroanatomy, offers several advantages. First, it includes all surgical vascular lesions that affect the spinal cord. Second, it guides treatment by classifying lesions based on location and pathophysiology. Finally, it eliminates the confusion produced by the multitude of unrelated nomenclatural terms found in the literature [1].

Updated classification system eliminates confusion related to older nomenclature and is based on the anatomical and pathophysiological features of these lesions. When treating these lesions, the neurovascular team must collaborate closely with their microsurgical and endovascular colleagues. Finally, treatment should be individualized, depending on lesional angioarchitecture and the patient's clinical status [2].

1)
Spetzler RF, Detwiler PW, Riina HA, Porter RW. Modified classification of spinal cord vascular lesions. J Neurosurg. 2002 Mar;96(2 Suppl):145-56. Review. PubMed PMID: 12450276.
2)
Kim LJ, Spetzler RF. Classification and surgical management of spinal arteriovenous lesions: arteriovenous fistulae and arteriovenous malformations. Neurosurgery. 2006 Nov;59(5 Suppl 3):S195-201; discussion S3-13. doi: 10.1227/01.NEU.0000237335.82234.CE. PMID: 17053603.