

Pudendal Neuralgia: Nerve Compression or Radiculopathy ?

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Received 22 July 2002

Pudendal neuralgia is a frequent but often ignored pathology. From an organic point of view it is in general due to a compression of the nerve pudendus, either on the level of the muscle piriformis, or on the level of the inter-sacro-spino-tuberal ligaments, or into the fascias of the muscle obturatorius internus which constitutes the canal pudendal or Alcock tunnel. Our methodology of electrophysiological exploration enables us to dissociate these various localizations.

Moreover, it is of primary importance to know a particularly and relatively frequent organic aspect of the pudendal neuralgia, namely an intraspinal radicular lesion of the nerve fibers (irritation, inflammation, mechanical dysfunctions ...). The most frequent causal agent is a disco or vertebro-radicular conflict in L4-L5 and/or L5-S1.

More, it is necessary to consider that nerve fibers previously damaged by a radicular lesion result in an oversensibility to the effects of a compression on its way.

In fact, the clinical signs evoke the pudendal neuralgia, electrology makes the diagnosis.

This electrophysiological investigation is based on punctures of the muscles supplied by the nerve pudendus (pelvic floor, sphincters), the motor distal conduction time evaluated by endo-cavitary stimulations, the sacral reflex, and on the spinal and cortical somesthetic evoked potentials. The investigation is supplemented by a radicular electromyography of the lower limbs.

Concerning the specific methodology we are using, our data can specify:

- * The localisation of the anatomical entrapment.
- * The degree and type of the nerve lesion (myelinic, axonal).
- * The differential diagnosis of peripheral nerve compression versus lumbosacral radicular impairment.
- * The nature of the sphincter or pelvi perineal muscular dysfunction (EMG parameters: abnormal spontaneous activity, increased percentage of polyphasic motor unit potentials, high voltage potentials).
- * The existence of myofascial pain.
- * A post-op state of pain memory.

* The possibility of sine materia pain (hypochondria, conversion).

* Referred pain from visceral dysfunction.

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