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Risks and Pitfalls of Epidural Injections during Management of Lumbar Disc Herniation: Few Comments

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LETTERS TO EDITORS

We read with curiosity the article entitled "Comparison of the efficacy of caudal, interlaminar, and transforaminal epidural injections in managing lumbar disc herniation: is one method superior to the other?" published in *the Korean Journal of Pain* [1]. Manchikanti et al. skillfully presented an intriguing review article of the effects of different epidural injection approaches in managing lumbar disc herniation. Their review showed that epidural injections provide relief in patients with the chronic lumbar disc herniation. However, we would like to offer suggestions to the authors about the complications and risks of epidural injections, as illustrated in the results discussed below.

It showed that probable mechanisms of spinal cord injury in patients undergoing cervical, thoracic, and lumbar epidural infiltration techniques include: spinal cord infarction due to needle-induced vasospasm, the embolization of particulate steroids, the mechanical disruption of radiculomedullary arteries, and compression from an epidural abscess or hematoma are [2]. Death as well as infarction of the brain stem, cerebellum, thalamus, and spinal cord have been reported after epidural injections, either by a transforaminal or an interlaminar procedure [3].

On the other hand, epidural injections have often been shown to be implicated in permanent and severe complications, including infection, intravascular injections, injections into the spinal fluid, nerve damage, hemorrhages, paralysis, weakening of the disc, or results of discitis and arachnoiditis [4]. Also, Manchikanti et al. [5] in a prospective, non-randomized study of patients undergoing epidural injections observed the following complications: intravascular injection, local bleeding, oozing, and local hematoma with profuse bleeding.

Thus, in the light of the unexpected complications and aforementioned detrimental outcomes, a critical re-assessment of the indication of epidural injection in the management of lumbar disc herniation is prompted. We feel that careful documentation and precise needle positioning are required. In addition, the application of non-particulate steroids is recommended. Finally, more studies are required on this topic.

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