Transverse processsectomy

- Bertolotti syndrome: an often overlooked cause of specific back pain
- Surgical Pitfalls in Bertolotti's syndrome management: A case report
- Decompressive L5 Transverse Processectomy for Bertolotti's Syndrome: A Preliminary Study

Indication

Indicated in selected patients whose severe buttock pain and leg pain had been relieved significantly by local anesthetic injection (only 1 mL of 2% lidocaineHCl without steroid). It is a very important procedure for us to discriminate the pain of pseudoarticulation from other pain mechanisms. Therefore, only a small amount of lidocaine-HCl (1 mL) was injected into the pseudoarticulation exactly, and confirmed the immediate pain relief transiently, without a long-term masking effect by steroid. In addition, this injection should be targeted to the pseudoarticulation exactly not the L5 exiting nerve root beneath the enlarged transverse process. The patients whose pain had not been relieved by a block to the pseudoarticulation were regarded as having pain from a different mechanism, regardless of the pseudoarticulation.

Surgical Procedure

Generalized endotracheal anesthesia.

Prone position on a Jackson table (OSI, Union City, CA), and the L5 spinous process was identified under fluoroscopy. An approximately 2 cm skin incision was made 3.5 cm lateral from the midline. Through the anatomic paraspinal intermuscular approach between the multifidus and longismus muscles, the basal part of the L5 transverse process and the upper part of the ala of sacrum were exposed. An operating microscope was used during the cutting of the L5 transverse process. In order not to cause injury to the iliolumbar ligament and the pseudoarticulation, we approached and secured the space of only the base part of the L5 transverse process without exposing the lateral tip of the transverse process. We then cleared the base part of the transverse process of its muscular and ligamentous attachments. The upper and lower margins of the L5 transverse process were identified by direct touching with a freer. A high-speed drill was used to cut the base of the transverse process of L5 bisectionally, and a cutting gap of at least 0.5 cm was made in order not to reunite. The mechanical stress on the pseudoarticulation between the tip of the transverse process and the alar of the sacrum can be blocked permanently using this procedure. The base part of the transverse process cut was coated with bone wax to control bone bleeding and avoid reunion. We confirmed complete cutting by pressing the transverse process and moving it freely. In group B, the L5 transverse processectomy was more advanced. After drilling on the base of the transverse process to cut, soft tissue was exposed and currettage to remove the soft tissue surrounding the L4 exiting nerve root, decompressing.

Then confirmed that an L4 nerve root was freely moving [1].

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Ju CI, Kim SW, Kim JG, Lee SM, Shin H, Lee HY. Decompressive L5 Transverse Processectomy for Bertolotti's Syndrome: A Preliminary Study. Pain Physician. 2017 Sep;20(6):E923-E932. PMID:

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