Facetogenic chronic low back pain

Song et al. compared the effectiveness of radiofrequency neurotomy (RN) and endoscopic neurotomy (EN) of the lumbar medial branch (MB) for facetogenic chronic low back pain (FCLBP).

Forty patients with FCLBP were included and randomly assigned to the control group and the experimental group. The control group (20 cases) underwent X-ray-assisted RN and the experimental group (20 cases) underwent EN of the lumbar MB. The patients' Visual Analogue Scale (VAS) score and Oswestry Disability Index (ODI) score were evaluated and compared preoperatively, and at 3 weeks, 6 months, 1 year, and 2 years postoperatively.

First, the RN group demonstrated successful treatment results ($P < 0.05$) at 3 weeks, 6 months, and 1 year after surgery. At 2 years, patients reported no significant effectiveness ($P > 0.05$). Second, the EN group demonstrated more prolonged successful treatment outcomes compared with the RN group. At 2 years, although the efficacy declined further, the VAS and ODI scores showed significant improvements compared with the preoperative data ($P < 0.05$). Third, there was no difference in VAS and ODI scores between the 2 groups at 3 weeks after surgery ($P > 0.05$). At 6 months and later, the EN group demonstrated better outcomes ($P < 0.05$).

For FCLBP, EN and X-ray-assisted RN of lumbar MB are both effective treatments. However, endoscopic lumbar MB neurotomy has the better and longer effectiveness [1].

Li et al. studied the effectiveness of surgical dorsal endoscopic rhizotomy for the treatment of facetogenic chronic low back pain.

From April 2011 to November 2011, 58 patients who were diagnosed with lumbar facetogenic chronic low back pain (CLBP) and thereafter experienced >80% reliefs of pain with two comparative lumbar medial branch blocks were recruited in the study. Of those 58 patients, 45 cases (the operation group) received dorsal endoscopic rhizotomy, and the remaining 13 cases (the conservative group) received conservative treatment. Patients' preoperative and postoperative VAS score, percentage of pain relief and the MacNab score were analyzed and compared. Anatomic variations and any possible complications were recorded.

In the operation group, VAS scores of pain (low back/referred) at any time point postoperatively were significantly lower than that before MBB ($P<0.05$), which, however, showed no significant difference as compared to the scores after MBB ($P>0.05$). In the conservative group, VAS scores of pain (low back/referred) at any time point postoperatively with conservative treatment decreased significantly compared with that before MBB ($P<0.05$) and were significantly higher than that after MBB ($P<0.05$). Percentage of pain relief in the operation group at any time point postoperatively were significantly higher than that in the conservative group ($P<0.01$). The MacNab scores of 1 year follow-up in the operation group were higher than that in the conservative group. In addition, four separate newly identified anatomical variations of medial branch anatomy were observed and reported.

Dorsal endoscopic rhizotomy is safe and effective for the facetogenic CLBP, and can achieve better clinical outcome than the conservative treatment [2].

[1]

Song K, Li Z, Shuang F, Yin X, Cao Z, Zhao H, Qin J, Li Z. Comparison of the Effectiveness of

Radiofrequency Neurotomy and Endoscopic Neurotomy of Lumbar Medial Branch for Facetogenic Chronic Low Back Pain: A Randomized Controlled Trial. World Neurosurg. 2019 Jun;126:e109-e115. doi: 10.1016/j.wneu.2019.01.251. Epub 2019 Feb 18. PubMed PMID: 30790724.

[2)]

Li ZZ, Hou SX, Shang WL, Song KR, Wu WW. Evaluation of endoscopic dorsal ramus rhizotomy in managing facetogenic chronic low back pain. Clin Neurol Neurosurg. 2014 Nov;126:11-7. doi: 10.1016/j.clineuro.2014.08.014. Epub 2014 Aug 18. PubMed PMID: 25194305.