Comment on "The Safety and Effectiveness of Orthobiologic Injections for Discogenic Chronic Low Back Pain: A Multicenter Prospective, Crossover, Randomized Controlled Trial with 12 Months Follow-up"

To the Editor:

We have read the article by Navani et al. titled "The Safety and Effectiveness of Orthobiologic Injections for Discogenic Chronic Low Back Pain: A Multicenter Prospective, Crossover, Randomized Controlled Trial with 12 Months Follow-up" with great interest (1). The authors concluded that a single intra-discal injection of platelet rich plasma (PRP) or bone marrow concentrate (BMC) was equally effective in improving discogenic low back pain after 12 months. The results of orthobiologic injections for treating discogenic pain appear promising, offering a popular alternative to invasive surgical procedures.

However we would like to raise a couple of concerns regarding the methodology of the study. Firstly, the authors have stated that the patients with high suspicion of discogenic pain "that is not generated from facet joints, sacroiliac joints, or any pathology other than discogenic origin" were included. The methods for excluding other potential sources of axial low back pain were somewhat unclear. Diagnostic medial branch blocks and sacroiliac joint blocks should have been performed in order to exclude facet syndrome or sacroiliac joint dysfunction and to accurately identify the degenerated disc as the sole cause of the axial pain (2,3). Without this, it is possible to speculate that patients who did not benefit from biological intradiscal injections may have had concurrent pathologies involving their facet or sacroiliac joints.

Secondly, the procedure was described as intradiscal injection of 1-2 mL of PRP/BMC or until resistance to further injection was felt by the operator. It is therefore understood the volume of the biologics was not standardized. Moreover, injecting until the disc can no longer accept the injectate may increase intradiscal pressure and exacerbate the pain. In our view, using a standardized volume would yield more consistent results for comparison.

Lastly, in the results section, the authors stated that pain improvement, measured by NRS scores, in both the PRP and BMC groups was statistically significant over the 12-month follow-up period compared to control patients. However, all patients in the placebo group crossed over to the study groups after experiencing less than a 50% reduction in NRS scores at 3 months. We would like to understand how the statistical comparison was made between the 3-month and 12-month follow-up periods to conclude a statistically significant difference.

In conclusion, in a field where scientific data remains modest at best, the authors have successfully conducted a prospective, randomized, placebo-controlled study comparing two orthobiologic intradiscal injections. While there are areas that could be improved, we would like to thank the authors for providing early evidence of the effective treatment of chronic discogenic low back pain with PRP and BMC.

Merve Sekizkardes, MD
Department of Physical Medicine and Rehabilitation, Division of Pain Medicine, Faculty of Medicine, Marmara University, Istanbul, Turkey
E-mail: merve.sekizkardes@gmail.com

Savas Sencan, MD
Department of Physical Medicine and Rehabilitation, Division of Pain Medicine, Faculty of Medicine, Marmara University, Istanbul, Turkey

Serdar Kokar, MD
Department of Physical Medicine and Rehabilitation, Division of Pain Medicine, Faculty of Medicine, Marmara University, Istanbul, Turkey

Osman Hakan Gunduz, MD
Department of Physical Medicine and Rehabilitation, Division of Pain Medicine, Faculty of Medicine, Marmara University, Istanbul, Turkey

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