

Comment on: The Effects of Rehabilitation Following Anterior Cervical Microdiscectomy and Fusion Surgery

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Dear Editor in Chief:

We read the paper “The Effects of Rehabilitation Following Anterior Cervical Microdiscectomy and Fusion Surgery” with great interest where the authors investigated the efficacy of physical therapy in patients who underwent anterior cervical microdiscectomy and fusion (1). The subject is interesting and the findings are significant, which can affect the postoperative management of these patients. We present some concerns with the paper, which require clarification by the authors alongside our opinions on some aspects for future studies.

The authors were fortunate to have 20 patients per group in a retrospective study where neither the total number of population nor the sample size per group is unknown initially. This provided equivalent groups for the study, which increased the comparability of the groups.

The authors used the Oswestry Disability Index (ODI), which was designed and validated for low back pain. Outcome measures that are more oriented toward cervical pathologies, such as Nurick grade, modified Japanese Orthopaedic Association Scale, Short Form Health Survey, and especially Neck Disability Index would be more suitable for this study (2). It might have been specified further as VAS neck and/or VAS-extremity, although visual analogue scale (VAS) is a universal tool.

C2–C7 Cobb angle is the most widely used cervical parameter. It varies widely, and the range for normal values has not been fully established. Since segmental lordosis deteriorates with time despite immediate improvement after surgery, its assessment might have demonstrated any effect of physical therapy on maintaining the segmental lordosis better (4). Another measure that could have been included is the C2–C7 sagittal vertical axis, which is the most widely used measure

of cervical sagittal balance since the aim of physical therapy was maintaining healthy neck functions by improving support from the adjacent musculature. Unlike the C2–C7 Cobb angle, it shows little variation and correlates with several outcome measures (3).

Assessing fusion rates at different time points would have provided an insight into favorable or unfavorable effects of timing of physiotherapy on fusion based on the discussion regarding timing of postoperative physiotherapy.

We also noticed some inconsistencies between the text and the tables. For example, the text mentions no significant difference in ODI between groups on postoperative 2nd day, but Table IV provides a p value of 0.018 for this comparison. An opposite issue is present for VAS scores between groups at six months. The authors also stated that based on their findings, rehabilitation and isometric exercises were important for return to normal social life, and physical therapy was important in maintaining cervical alignment. However, it appears that neither the VAS scores nor the C2–C7 lordosis angle showed any difference between groups at any time point according to the tables.

Another concern is that although the study had two groups (20 in each one) depending on whether they received physical therapy, the results section reveals that all 40 patients had some physical therapy (27 patients received physical therapy for 6-months)

These inconsistencies may be due to typographical errors and require correction.

We believe that the findings of this study may lead to changes in the postoperative approach to these patients. We also believe that clarification of the abovementioned aspects will further increase its scientific value.

■ ACKNOWLEDGEMENTS

Preparation for publication of this article is partly supported by Turkish Neurosurgical Society.

■ AUTHORSHIP CONTRIBUTION

The authors (SA, SB) confirm responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

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