Importance of Multifidus Muscle Activity as a Treatment Outcome Measure in Chronic Low Back Pain

Sir,

Low back pain (LBP) remains the leading cause of reduced function and years lived with disability worldwide. However about 20% of global population suffers with chronic LBP (CLBP). The pain intensity measurement is a common treatment outcome measure used in the clinical practice for different musculoskeletal conditions including LPB and is relied on self-reported rating scales.[1] Differences in intensity of pain do not achieve meaningful level of clinical picture of LBP cases when interventions are compared within, and between groups. Therefore, both the healthcare provider, and the patient should consider the addition treatment outcome measures to get visual feedback of their choice of LBP treatment.[2] One of the Important treatment outcomes is multifidus muscle activity assessment. Introducing this as treatment outcome for patients with spinal conditions, and LBP, is important as there is evidence that the multifidus muscles are important stabilisers of lower back, and its dysfunction can strongly associate with LBP. This dysfunction could be persistent after resolving the pain leading to high recurrence, and chronicity of LBP. It is suggested that its activation is an important feature of any clinical approach to the LBP patient, and is generally targeted to be improved through rehabilitation programme.[3]

It is an outcome measurement that not only allows health care provider to observe multifidus muscle contraction at rest including hyperactivity, spasms, and lack of inhibition; but also provides assessment of different aberrant patterns of its activation during CLBP rehabilitation.[3] A clinical perspective has also found that it is effective to use assessment of multifidus activity in management of CLBP along with other assessment.[1] Moreover, a systemic review concluded to include this treatment outcome measure during rehabilitation programme of CLBP.[4] There is evidence that improvement in multifidus activity can further decrease pain, and disability in CLBP.[5] This assessment provides a prospect to lay the foundation for a positive alliance with treatment, which refers to a key factor in determining rehabilitation outcomes.[1]

Multifidus activity is being measured with several methods in Pakistan like magnetic resonance imaging, computed tomography, ultrasound, and electromyography. The ultrasound and surface electromyography are easy to use. Healthcare providers should use suitable methods which could be reached easily, and feasible for patients. It may help improve efficacy of CLBP management by demonstrating outcomes, specifically in visual way.

CONFLICT OF INTEREST:
The authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:
AAMB: Conception, design of work, critical analysis and final approval for publishing.
BA: Conception, drafting of work, critical revision and final approval for publishing.

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Received: November 05, 2020; Revised: December 05, 2020; Accepted: December 28, 2020
DOI: https://doi.org/10.29271/jcpsp.2021.12.1528