

Evaluating the Efficacy of IASTM for Cervical Disc Herniation: Strengths and Shortcomings

Sakarie Mustafe Hidig^{1,2*}, Fidele Kakule Kitaghenda³, Hannan Samatar⁴

¹Head of Researchers, Research Center, Hargeisa Group Hospital, Hargeisa, Somaliland

²Department of Surgery, Division of Hepatobiliary and Pancreatic Surgery, The Fourth Affiliated Hospital, Zhejiang University School of Medicine, Yiwu, Zhejiang Province, PR. China

³Department of Gastrointestinal Surgery, The Affiliated Hospital of Xuzhou Medical University, Xuzhou, Jiangsu, People's Republic of China

⁴Department of Cardiology, Macclesfield District General Hospital, Cheshire, United Kingdom

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DEAR EDITOR

I want to share my constructive opinion on the article "Effect of Instrument Assisted Soft Tissue Mobilization in Patients with Cervical Disc Herniation: A Randomized Controlled Trial," published in BACHS by Yasin Algantekin *et al.*, May 2024; 8(2):327-335. In the first instance, I want to thank the authors for the excellent work done to provide a useful contribution in this area, as this content is of utmost importance to physicians who work in clinical environments. This study about the efficacy of Instrument Assisted Soft Tissue Mobilization (IASTM) for patients with Cervical Disc Herniation (CDH) was done well with a good study design and a careful consideration of different outcomes [1]. The study gains validity by improving on the issues of selection bias where a randomized controlled trial (RCT) is applied to a clearer effect-cause relationship of IASTM and the patient. Using CONSORT and SPIRIT to guide the study enables the researchers to follow standard reporting practices and techniques. Through integrating the overall assessment of a range of patient health status, such as pain in VAS scale and disability in NDI and CNFDS scales, as well as the psychological outcome in HADS scale, the study gives a comprehensive understanding of the change. Equally of great importance is integration of psychological evaluations given the profound role of psychosocial factors in chronic pain as well as CDH [2].

However, several limitations need addressing to enhance the study's reliability and applicability. The small sample size (24 participants) limits the generalizability of the findings and the statistical power to detect significant differences between groups. The

lack of blinding for both therapists and evaluators could introduce measurement and performance biases, potentially skewing the results [3]. I suggest future studies should aim for at least evaluator blinding to enhance objectivity. Additionally, the study only assesses the short-term effects of the intervention, leaving the long-term efficacy of IASTM unexamined. A longer follow-up period would provide a more comprehensive understanding of the sustained benefits or potential drawbacks of the treatment.

The discrepancy in BMI between the groups ($p=0.028$) might also confound the results, despite the authors' assertion that BMI does not primarily affect clinical status in CDH. This difference could influence other factors such as mobility and pain perception. Methodologically, the study would benefit from including assessments of cervical range of motion, which would provide additional objective data on functional improvements. Broader demographic representation, encompassing diverse age groups and varying severity levels of CDH, would enhance the applicability of the findings to a wider patient population [4]. Detailed reporting on patient adherence to the intervention protocol (e.g., attendance rates for IASTM sessions) would offer insights into the practical application and real-world effectiveness of the treatment. Incorporating a more comprehensive psychological assessment tool that considers physical factors influencing anxiety and depression could yield deeper insights. The study provides valuable preliminary data on the effectiveness of IASTM in treating CDH, its limitations suggest that further research with larger, more diverse populations and longer follow-up periods is necessary. This would help

confirm the findings and establish more robust clinical guidelines, ultimately contributing to improved patient care and treatment strategies.

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Abbreviation

IASTM Assisted Soft Tissue Mobilization
CDH Cervical Disc Herniation
HADS Hospital Anxiety and Depression Scale
RCT randomized controlled trial
NDI Neck Disability Index
VAS Visual Analogue Scale
CNFDS Copenhagen Neck Functional Disability Scale

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