

Erratum

Erratum to: The association of lower trunk muscle strength with low back pain in elite lightweight judokas is dependent on lumbar spine abnormalities

Takashi Okada, Kazunori Iwai, Takayoshi Hakkaku and Koichi Nakazato
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On page 177, the results section of the abstract included typesetting errors that have been corrected in the online version of the article (DOI: 10.3233/IES-210193). The corrected abstract should read as follows:

Abstract.

BACKGROUND: Lumbar radiological abnormalities (LRA) and trunk muscle weakness are major causes of the low back pain (LBP). We reported that the prevalence of LRA was approximately 90% in middle- and heavyweight-judokas, independent to the occurrence of LBP. However, the trunk muscle weakness, especially the rotators, plays a key role in occurrence of LBP in heavyweight judokas.

OBJECTIVE: To examine the trunk muscle strength (TMS) and LRA impact on LBP occurrence in lightweight judokas.

METHOD: The strength of the trunk extensors, flexors, and rotators was measured in 32 lightweight male judokas. LBP and LRA were identified using a questionnaire, X-ray, and MRI.

RESULTS: The occurrence rate of LBP and LRA were 40.6% and 62.5%, respectively, without any significant correlation. Among judokas without LRA, TMS of those with LBP were significantly lower than those without LBP ($P < 0.05$, the extensor; 60°/s: ES [d] = 1.38, 90°/s: ES [d] = 0.78, and 120°/s: ES [d] = 0.37, flexor; 60°/s: ES [d] = 1.48, dominant rotator; 60°/s: ES [d] = 1.66, and 90°/s: ES [d] = 1.87, non-dominant rotator; 90°/s: ES [d] = 0.17, and dominant/non-dominant rotator ratio; 90°/s: ES [d] = 1.55). Moreover, there were significant negative correlations between LBP severity and TMS ($P < 0.05$, the extensor; 90°/s: $r = -0.63$, dominant rotator; 90°/s: $r = -0.648$, and dominant/non-dominant rotator ratio; 90°/s: $r = -0.621$) in judokas without LRA.

CONCLUSION: Weak trunk musculature may be a co-factor in the occurrence of LBP in lightweight judokas without LRA.