Bone Mineral Density and Body Composition in Males with Motor Neuron Disease: A Study from Teaching Hospital in Southern Part of India

Sir,

Sooragonda *et al*.[1] assessed bone mineral density (BMD), bone mineral parameters, and body composition in Indian patients with motor neuron disease – amyotrophic lateral sclerosis (MND-ALS) – and compared these with healthy controls. They found that MND-ALS patients and healthy controls had similar BMDs [as measured by Dual-energy X-ray absorptiometry (DXA) scan]. However, bone turnover markers (BTMs) were significantly higher in the MND-ALS group, indicating a high turnover state.[1] Accordingly, they recommended testing for serum calcium, 25-hydroxy vitamin D, BTMs, and BMD in MND-ALS patients.[1] Besides few study limitations mentioned by Sooragonda *et al.,*[1] I presume that the following methodological limitation is also relevant. It is obvious that BMD reference intervals (BMDRIs) are required to interpret BMD estimates measured by DXA scan. BMDRIs are determined by many factors, namely age, gender, race, weight, pubertal stage, and socio-economic class,[2,3] and normative BMDRIs have been generated for certain populations. These normative BMDRIs are utilized in clinical settings and researchcenters. Interestingly, India has already constructed its indigenous BMDRIs.[4] Instead of employing Indian normative BMDRIs, Sooragonda *et al*.[1] have inadvertently employed the International Society of Clinical Densitometry (ISCD) criteria released in 2004[5] to define osteoporosis and normal BMD on interpreting the calculated BMD values. We feel that this limitation in their methodology might affect the interpretation of the study findings and recommendations addressed by Sooragonda *et al*.[1] It was solicited from Sooragonda *et al*.[1] to add in the limitations of their study that they could not employ the new Indian reference data, released in 2021,[4] as it was not launched at the time of conducting their study. The data in the Indian BMDRIs was recruited from a limited number of subjects (825 subjects: men = 380; women = 445)[4] and needs further substantiation. Hence, they have used international criteria.[5]

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Conflicts of interest

There are no conflicts of interest.

Mahmood D. Al-Mendalawi

Department of Paediatrics, Al-Kindy College of Medicine, University of Baghdad, Baghdad, Iraq

Address for correspondence: Prof. Mahmood D. Al-Mendalawi, P.O. Box 55302, Baghdad Post Office, Baghdad, Iraq.
E-mail: mdalmendalawi@yahoo.com

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