

Bone mineral density loss in patients with cirrhosis

Sir,

I refer to the interesting study published by Muhsen *et al.* in SJG.^[1] The authors found that cirrhotic patients are at increased risk of bone mineral density (BMD) loss at the lumbar spine (LS) when compared to the general population. Out of the possible predictors tested (gender, age, body mass index, phosphorus, calcium, parathyroid hormone, vitamin D, and Model for End Stage Liver Disease [MELD] score), female gender was the main predictor of BMD loss at LS, highlighting the need for preventive measures especially for female patients.^[1] The authors noted that the study was limited by its retrospective nature, as a temporal relationship between cirrhosis and BMD loss could not be made.^[1] Additionally, I believe that the following methodological limitation may limit the accuracy of the study results. The authors mentioned that BMD was collected for both LS (L1–L4) and femoral neck (FN), and dual energy x-ray absorptiometry scan was used in measuring BMD. From World Health Organization (WHO) criteria, the results were then classified according to T-score into normal: <-1 Standard Deviation (SD); osteopenia: between -1 and <-2.5 SD; and osteoporosis: >-2.5 SD at both LS and FN.^[1] It is obvious that BMD reference values (BMDRVs) are additionally controlled by various determinants namely age, gender, weight, pubertal stage, ethnicity and socio-economic standard.^[2-3] According to the aforementioned determinants, normative BMDRVs have been constructed for certain populations to be employed in the clinical field and research.^[4] It is noteworthy that the Kingdom of Saudi Arabia is a pioneer in determining BMDRVs in healthy Saudis of both genders that underscored the importance of utilizing population-specific reference values for BMD estimations to avoid under diagnosis and/or over diagnosis of osteoporosis.^[5] It remains unclear why the authors did not refer to the national BMDRV in their study. It can be assumed that employing them could better delineate BMD profile and its predictors in the Saudi patients with cirrhosis. Despite the study limitations, patients with cirrhosis need to be periodically checked for BMD loss and appropriate interventions planned should any osteoporosis or osteopenia be detected.

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Conflicts of interest

There are no conflicts of interest.

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