Correspondence

Does serum vitamin-D predict insulin resistance in individuals with prediabetes?

Sir,

Apropos of article on the association between serum vitamin-D and insulin resistance in individuals with prediabetes, the authors need to be complimented for their effort in establishing vitamin-D deficiency as a predictor for insulin resistance. As pointed out by the authors the study showed that vitamin-D insufficiency/deficiency was common among individuals with prediabetes. However, there are some basic concerns with this finding. To establish this statement, the study should have reflected on the fact that this condition (vitamin-D deficiency in this case) is common in one population (pre-diabetics in this case) in comparison to some other population or the general population. Given the fact that vitamin-D deficiency is being widely reported not just from India but across the other populations of the world, we need to re-look at this statement. Studies estimate that 1 billion people worldwide have vitamin-D deficiency or insufficiency. There is widespread prevalence of varying degrees (50-90%) of vitamin-D deficiency with low dietary calcium intake in Indian population. Now, the prediabetes group included in this study has been selected automatically from this vitamin-D deficient population. Therefore, the fact that this study reporting on vitamin-D deficiency/insufficiency in 73.25 per cent individuals with prediabetes may just be a reflection of deficiency prevalent in general population and not specific to pre-diabetics.

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References


Authors’ response

Sir,

The authors appreciate the comments of the esteemed reader of our article. The authors agree with the observation that the occurrence of vitamin-D deficiency/insufficiency of 73.5 per cent (115/157) among individuals with prediabetes in our study was reflective of the widespread vitamin-D deficiency in the general population. The same has already been mentioned in the summary of the article in the last paragraph of the discussion section. The primary objective of this cross-sectional study was not to evaluate the burden of vitamin-D deficiency/insufficiency in prediabetes, but to highlight the inverse correlation between vitamin-D and insulin resistance, even after adjusting for body mass index and glycated haemoglobin. In a subsequent prospective study, we have observed vitamin-D to be predictive of prediabetes reversal to normoglycaemia. Further, in the first open labelled randomized controlled trial from India, we observed vitamin-D supplementation to be beneficial in improving glycaemic outcomes in prediabetes and it...
was associated with improvement in insulin resistance, inflammatory cytokines and lipids³.

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References