Primary biliary cirrhosis is associated with falls and significant fall related injury

Sir,

We would like to thank the author of the letter regarding our recent paper in *QJM* where we identified an increased prevalence of falls in those with the autoimmune liver disease primary biliary cirrhosis (PBC). The author raises some very interesting and important points.

The full extent of the biochemical and physiological role of vitamin D is not yet fully understood. It is known that it plays an essential role in bone metabolism and calcium homeostasis, but it also appears to play a role in immunity, muscle strength, fatigue and falls. Metabolism of calcium and vitamin D is almost always normal in PBC and the process of 25-hydroxylation is maintained. Vitamin D deficiency is the second most common fat-soluble vitamin deficiency in PBC, but absorption from the gut is not affected until there is severe cholestasis. The majority of those in our study had early stages of liver disease and none of our participants had evidence of cholestasis.

There is much debate about whether vitamin D supplementation reduces falls in the elderly with many conflicting results. However, it appears that those who do benefit from supplementation do so regardless of their serum vitamin D status. With this in mind, it may therefore be that it is the biological activity which is more relevant than actual serum levels; the emerging research concerning vitamin D receptor polymorphisms in PBC is very interesting and may be relevant here.

We agree with the respondent that vitamin D supplementation may be necessary in PBC to improve muscle weakness, falls and even fatigue just as it...
does so in the general and elderly population. However, we feel that including vitamin D status in a regression model may be misleading as the absence of an independent association would not mean that supplementation is not worthwhile. What is more important is to conduct a prospective trial evaluating the clinical and personal effects of vitamin D supplementation.

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References

doi:10.1093/qjmed/hcq060
Advance Access Publication 20 April 2010