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

Sir,

The report of increased falls and fall-related fractures in people with primary biliary cirrhosis is interesting and important as this information should help to ensure that efforts are made to reduce these risks at on-going follow-up. Biliary cirrhosis has been reported to be associated with reduced vitamin D absorption. Hypovitaminosis D has been recognized as a cause of muscle weakness that can be improved by supplementation and lean muscle mass is inversely associated with vitamin D status in young women. Replacement of vitamin D in adequate dosages in deficiency has also been reported to reduce the risk of falls and of fragility fractures in older people. I wonder, therefore, whether the authors can tell us whether their patients’ vitamin D status [serum 25-hydroxy-vitamin D concentration] is available, or could be measured on stored serum, since its inclusion in their multiple regression analyses might reveal it to be an independent ‘determinant’ of lower limb muscle strength, the risk of falls and of fall-related fractures in their study group. If this was the case, it would be useful to examine the possibility that prophylactic prevention of hypovitaminosis D might have a major role in reducing these risks.

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References


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Primary biliary cirrhosis, falls and the vitamin D endocrine system

Sir,

Frith and colleagues found a high prevalence of falls and resultant injuries in patients with primary biliary cirrhosis (PBC). In particular, lower limb strength was a significant determinant of falls in PBC individuals. We suggest that this detrimental association might be related to an impaired activity of the vitamin D endocrine system.

The vitamin D system may be involved in the inhibition of the proinflammatory T cells such as Th1 and Th17 cells, and in favouring the development of Th2 and T regulatory cells. Since PBC can be considered a Th1-mediated autoimmune liver disease, an involvement of the vitamin D endocrine system in the immunopathogenesis of PBC is plausible. Indeed, it has recently been shown that the