A rationale for vitamin D prescribing in a falls clinic population

SIR—Dhesi et al. [1] report a high prevalence of hypovitaminosis D (25 OHD <20 µg/l [<49 nmol/l]) in patients presenting to a falls clinic setting. The terms ‘vitamin D deficiency’ and ‘vitamin D insufficiency’ have been used synonymously throughout but are completely separate biochemical states with separable consequences and should be referred to appropriately [2]. This has been alluded to in the discussion at one point but is inconsistent throughout the paper. Furthermore, the absolute threshold defining ‘vitamin D insufficiency’ still remains unclear [3] however, since ‘vitamin D insufficiency’ is defined biochemically as the status of hypovitaminosis D influencing calcium homeostasis, mediated by an increase in PTH secretion [4], it may also be more appropriate to include a threshold level of PTH in the definition. The importance of this is further justified in that not all patients with hypovitaminosis D manifest the biochemical effects of secondary hyperparathyroidism [5], which may have further implications in recommending optimal replacement therapy.

In the title of the paper and the conclusion Dhesi et al. [1] pragmatically suggest that all individuals aged over 65 years attending a falls clinic should be offered vitamin D supplementation, but fail to draw attention to the role of concurrent calcium therapy. There is poor evidence that vitamin D alone reduces hip fractures [6] and although the majority of the patients in the aforementioned study were vitamin D replete, further sub-analysis of the hypovitaminosis D group showed no reduction in hip fractures. In the study by Heikinheiro et al. [7], vitamin D given annually by intramuscular injection resulted in a reduction in non-vertebral fractures, however sub-analysis only showed a reduction in upper limb but not hip fractures although limitations is study power and design are clearly acknowledged. Only the combination of calcium and vitamin D has consistently shown a reduction in non-vertebral and hip fractures [8, 9].

With respect to falls, in the study by Pfeifer et al. [10], the reduction in falls was associated with using the combination of calcium and vitamin D compared to calcium alone.

A pragmatic treatment approach for elderly patients presenting to a falls clinic with current evidence may be to blanket prescribe calcium and vitamin D, excluding primary hyperparathyroidism by measuring baseline serum calcium, but also repeating serum calcium in those with a baseline calcium towards the upper quartile of the normal range (sub-clinical primary hyperparathyroidism). Clearly the role of vitamin D injections alone bi-annually is a more practical therapeutic option; however further studies are clearly necessary.

In patients who have a prevalent fracture a bisphosphonate should be considered as an adjunct therapy.

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