

Calcium Supplementation in Postmenopausal Women: Rethinking the Prescription

Madam, Maintaining calcium homeostasis is imperative for optimal bone health. This mineral equilibrium in the body is achieved through an intricate interplay of hormones. The years leading up to menopause are the harbinger of an estrogen deficient state in the body of a female. This translates into important implications for bone health; placing postmenopausal women at a higher risk of fragility fractures because of osteoporosis.

The Pakistani populace is observed to be Vitamin D deficient and hypocalcaemic; this trend being observed even among individuals of a younger demographic distribution. Women have generally shown a more severe deficiency than men.¹ In view of the widespread calcium deficiency prevalent among the population, it has become a common practice to uniformly prescribe calcium to postmenopausal women for the prevention of osteoporosis in pursuit of universal recommendations of the same.

While calcium has been shown to be an effective treatment for osteoporosis in people over the age of 50 years² and current guidelines for calcium intake recommend an amount of 1200 mg per day for such individuals as well, new emerging evidence incriminates calcium as a culprit in increasing cardiovascular morbidity and mortality in

postmenopausal women.^{3,4} One recent randomized controlled trial reported a statistically significant increase in myocardial infarction in the calcium group ($p=0.047$).⁵ While these studies maybe fraught with some limitations and their results are not wholly unequivocal, they raise some concern about the safety profile of calcium supplementation in this age group. Meticulous risk assessment before starting calcium supplementation could therefore be advocated on the grounds that the importance of the deleterious effects of calcium supplementation on cardiovascular disease burden in postmenopausal women could parallel its beneficial effects on bone in these women.⁵ This holds immense relevance in our context because cardiovascular diseases form one of major slices of the disease burden of Pakistan.

Future studies are required to validate these findings in our setting as this new evidence places us on the horns of a dilemma. We must carefully locate the fulcrum where we are able to weigh the burden of cardiovascular diseases vis a vis osteoporotic fractures; the former now conjectured to have a link to widely and often indiscriminately prescribed calcium supplementation.

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References

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