

CHANGES IN SERUM CALCIUM, URINE CALCIUM, SERUM PHOSPHATE AND URINE PHOSPHATE LEVELS BY CALCIUM SUPPLEMENTS IN POST- MENOPAUSAL WOMEN

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ABSTRACT

The present study was intended to find out whether the calcium supplements with vitamin D significantly affect the serum calcium, the urinary calcium, and the serum phosphate & the urine phosphate levels in post-menopausal women. Among sixty healthy postmenopausal women enrolled, thirty formed the study group (SG) with calcium supplementation for a period of a month, three months and twelve months, and the remaining thirty women formed the age-matched control group (CG) with no calcium supplementation. By using the appropriate biochemical methods the levels of serum calcium, urinary calcium, serum phosphate and urine phosphate were estimated, and the data were analyzed by using relevant statistical methods. In spite of consuming the calcium supplements over a period of time, the serum calcium levels did not vary significantly in SG, but the urinary calcium levels increased progressively (p value <0.005) in those who were administered the calcium supplements for a period of twelve months as compared to those for a month duration. There was initial decrease in serum phosphate level (after a period of 1 month of calcium intake), the serum phosphate levels gradually reached to the levels of control group, along with progressive increase in urinary phosphate levels as that in the control group (p value < 0.005). Thus, the calcium supplements, though, were of little significance on the serum calcium levels, however, have a significant effect on the levels of urinary calcium, serum phosphate and the urinary phosphate in post-menopausal women.

KEYWORDS: Calcium Supplements, Post-Menopausal Women, Serum Calcium, Serum Phosphate, Urine Calcium, Urine Phosphate.

Original Article

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