

Effect of calcium derived from *Lithothamnion* sp on markers of calcium metabolism in premenopausal women.

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This double-blind, randomised, cross-over trial investigated if the plant-derived calcium in Aquamin was more bioavailable than the non-plant-derived calcium from calcium carbonate or placebo.

12 fasting female subjects received a single, oral dose of Aquamin (720mg Ca), Calcium carbonate (720mg) or placebo. Blood and urine samples were collected at baseline and over 12 hours to evaluate ionised and total calcium and parathyroid hormone (PTH) levels.

Results

Subjects treated with Aquamin F demonstrated significantly greater urinary clearance of calcium after 12h compared with placebo.

Subjects treated with Aquamin F demonstrated a prolonged suppression of serum PTH concentration (significantly lower than placebo at 90, 120 and 240 minutes).

Calcium carbonate showed an intermediate response. Urinary clearance was not significantly different from placebo treatment and PTH was only significantly lower than placebo at 90 minutes.

Therefore, Aquamin F demonstrates greater influence over these markers of calcium metabolism than calcium carbonate or placebo following a meal in premenopausal women.

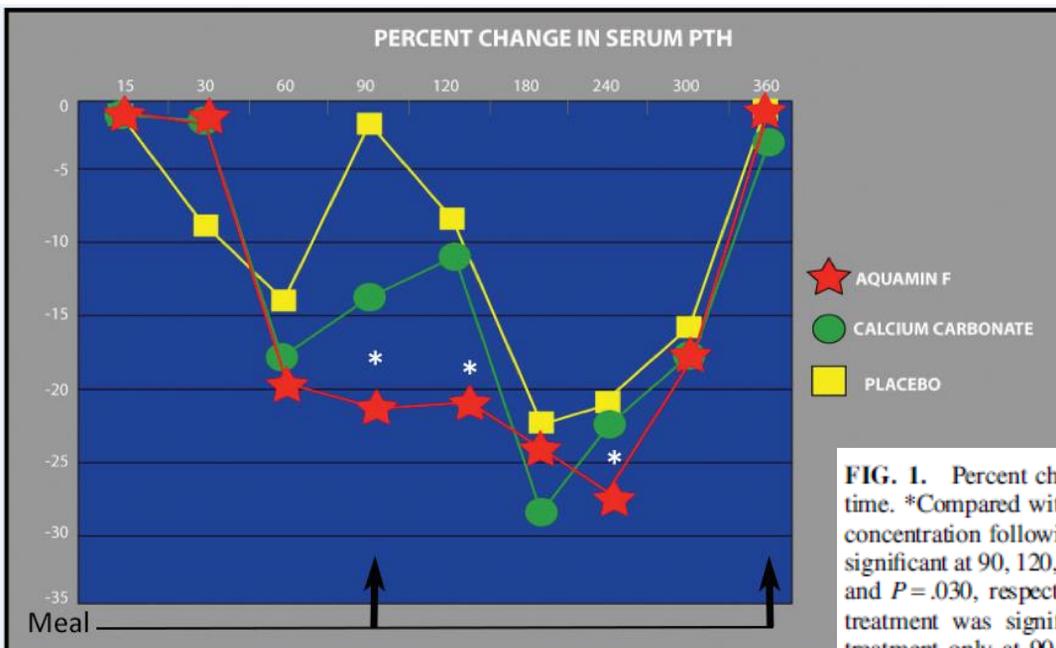


FIG. 1. Percent change in serum PTH levels over time. *Compared with placebo, the decrease in PTH concentration following Aquamin F™ treatment was significant at 90, 120, and 240 min ($P = .003$, $P = .017$, and $P = .030$, respectively) while calcium carbonate treatment was significantly different from placebo treatment only at 90 min ($P = .026$). Arrows indicate the timing of meals. PTH, parathyroid hormone. Color images available online at www.liebertpub.com/jmf