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Potassium-magnesium citrate is an effective prophylaxis against recurrent calcium oxalate nephrolithiasis.

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Abstract

PURPOSE:

- ❖ We examined the efficacy of potassium-magnesium citrate in preventing recurrent calcium oxalate kidney calculi.

MATERIALS AND METHODS:

- ❖ We conducted a prospective double-blind study of 64 patients who were randomly assigned to receive placebo or potassium-magnesium citrate (42 mEq. potassium, 21 mEq. magnesium, and 63 mEq. citrate) daily for up to 3 years. **RESULTS.** New calculi formed in 63.6% of subjects receiving placebo and in 12.9% of subjects receiving potassium-magnesium citrate. When compared with placebo, the relative risk of treatment failure for potassium-magnesium citrate was 0.16 (95% confidence interval 0.05 to 0.46). Potassium-magnesium citrate had a statistically significant effect (relative risk 0.10, 95% confidence interval 0.03 to 0.36) even after adjustment for possible confounders, including age, pretreatment calculous event rate and urinary biochemical abnormalities.

CONCLUSIONS:

- ❖ Potassium-magnesium citrate effectively prevents recurrent calcium oxalate stones, and this treatment given for up to 3 years reduces risk of recurrence by 85%.