

# Abstract

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## Effect of acute and chronic oral zinc administration in hyperprolactinemic patients.

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**OBJECTIVE:** The inverse relationship between zinc (Zn++) and prolactin (PRL) was detected in in vitro studies, whereas in vivo results are contradictory. In order to evaluate this controversial subject we studied patients with hyperprolactinemia.

**METHODS:** Basal serum Zn(++) levels and serum PRL response to acute and chronic oral Zn(++) administration were evaluated in seven patients with prolactinomas and one with idiopathic hyperprolactinemia.

**RESULTS:** Serum PRL levels did not change after acute oral Zn(++) administration (37.5 mg), although Zn(++) levels increased from 1.11+/-0.15 to 2.44+/-0.39 mug/mL ( $P < 0.05$ ). ZnZn(++) administration (47.7 mg daily) during 60 days increased serum Zn(++) levels from 1.11 +/- 0.15 to 1.59 +/- 0.58 mug/mL ( $p < 0.05$ ) but caused no change in serum PRL levels. The TRH tolerance test (200 mug) was performed before and after 60 days of Zn(++) administration, and PRL response to TRH was unchangeable and similar in both tests.

**CONCLUSION:** We concluded that acute or chronic Zn(++) administration does not inhibit PRL secretion in basal condition or by TRH effect in hyperprolactinemic patients.

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