

Abstract

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Effect of zinc administration on thyrotropin releasing hormone-stimulated prolactinemia in healthy men.

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BACKGROUND: Previous in vitro studies have demonstrated zinc (Zn++) inhibition of basal and of potassium (K+) or thyrotropin-releasing hormone (TRH)-stimulated prolactin (PRL) secretion, in a selective, reversible, and dose-dependent manner. Thus, Zn++ may regulate physiologically pituitary PRL secretion. Furthermore, studies with patients with uremia, cirrhosis or prolactinoma, have shown the coexistence of hypozincemia and hyperprolactinemia and zinc supplementation did not correct hyperprolactinemia in these patients. In normal individuals Zn++ administration produced controversial results on PRL secretion.

OBJECTIVE: Here, we investigated whether zinc administration affects TRH-stimulated PRL in healthy men.

RESULTS: We found that Zn++ administration does not change the TRH-stimulated PRL.

CONCLUSION: Therefore, in normal conditions, Zn++ does not inhibit TRH-stimulated prolactinemia. In addition, we found that acute increases of blood PRL and TRH do not alter blood Zn++ levels.

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