

**Prolactin secreting effect of leptin on rat endometrial stromal cells  
not mediated by insulin-like growth factor I**

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We have recently demonstrated that exogenous leptin stimulates prolactin secretion by rat endometrial stromal cell cultures. Insulin-like growth factor I (IGF-I) is known to stimulate prolactin secretion by endometrial stromal cells (ESC). We studied the effect of exogenous leptin on IGF-I secretion by rat endometrial stromal cells which secreted prolactin in response to leptin. Sub-cultures in the fourth passage propagated from primary rat endometrial stromal cell cultures were stimulated with recombinant mouse leptin upon reaching confluence. IGF-I and prolactin concentrations in cell culture supernatants were measured using commercially available rat IGF-I and prolactin enzyme immunoassays. All experiments were conducted in triplicate.

Prolactin secretion by these cell cultures in response to leptin has been described previously. Leptin administration at 1 ng/ ml for 72 h did not cause a significant increase in IGF-I despite significantly increasing prolactin secretion. Furthermore leptin administration at 1000 ng/ ml for 24 h failed to significantly increase IGF-I secretion by endometrial cells despite increasing prolactin secretion. Thus the effect of leptin on prolactin secretion by endometrial stromal cells does not appear to be mediated via increased IGF-I secretion.

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