

Smoking effects on prolactin at the end of pregnancy

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Abstract

The blocking effect of nicotine on prolactin during lactation has been studied in animals and human beings, but limited research has been conducted in the last period of pregnancy in smoking mothers. In Chile, the majority of women smoke less than 6 cigarettes per day. This study is aimed at evaluating changes in prolactin levels in light smokers between 35–38 weeks of pregnancy. A cross-sectional study was conducted in a Health Center in the Southern area of Santiago in a group of 51 smoking and 58 non smoking mothers. Blood samples were collected for prolactin determination by radio-immunoanalysis. Results show that a minimum of 5 cigarettes significantly decreases prolactin concentration in smokers. A matched pairs comparison confirmed that smoking reduces the level of prolactin. In sum, results demonstrate that light smoking has a deleterious effect on prolactin levels at the end of pregnancy. A measurement of this hormone in the 35–38 weeks of pregnancy could be a good predictor of lactational performance. This work was funded by Fondecyt Project 1069/92 of the Chilean Council for Sciences and Technology.