Adipocyte resistin mRNA levels are downregulated by laparoscopic ovarian electrocautery in both obese and lean women with polycystic ovary syndrome

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摘要

Abstract

BACKGROUND: The aim of this study was to investigate serum and adipocyte mRNA expression of resistin in lean and obese women with polycystic ovary syndrome (PCOS) before and 3 months after laparoscopic ovarian electrocauterization (LOE).

METHODS: Adipose tissue obtained from 12 women with PCOS (six obese and six lean, body mass index > 27 kg m−1 as threshold point) before and after LOE was analysed. Gene expression of resistin was measured by semi-quantitative RT–PCR. Ten lean, age-matched healthy women served as controls.

RESULTS: Both lean and obese women with PCOS had significantly higher fasting and 2 h insulin and homeostasis model insulin resistance index (HOMAIR) values and lower fasting glucose-to-insulin ratios (G0/I0) than did the controls. The serum levels of glucose and insulin and HOMAIR were significantly decreased, and the G0/I0 ratio was significantly increased 3 months after LOE. No difference was found in serum resistin levels between controls and either obese or lean women with PCOS before LOE, nor between PCOS patients before and after LOE. However, resistin mRNA expression levels in both lean and obese women with PCOS before LOE were significantly higher than that in controls and were decreased significantly after LOE back to control levels.

CONCLUSION: Local resistin activity may be actively involved in the

pathogenesis of PCOS. LOE reduces insulin resistance and down-regulates resistin mRNA expression in lean and obese women with PCOS