

Abstract

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The effect of myoinositol supplementation on insulin resistance in patients with gestational diabetes.

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AIM: To test the hypothesis that myoinositol supplementation will improve insulin sensitivity as measured by markers of insulin resistance such as homeostasis model assessment of insulin resistance and adiponectin in women with gestational diabetes.

METHODS: The trial was carried out in diet-treated patients with gestational diabetes diagnosed in our department between April 2008 and September 2009. Subjects were randomly assigned to receive either myoinositol supplementation (4g daily) plus folic acid (400µg daily)-the study group-or folic acid only (400µg daily)-the control group. Both groups received the same diet prescription. Homeostasis model assessment of insulin resistance and adiponectin were assayed while fasting at the time of the diagnostic oral glucose tolerance test and after 8 weeks of treatment.

RESULTS: There were 69 evaluable patients, 24 in the study group and 45 in the control group. Fasting glucose and insulin, and consequently homeostasis model assessment of insulin resistance, decreased in both groups (50% in the study group vs. 29% in the control group), but the decline in the study group was significantly greater than that in the control group ($P = 0.0001$). Adiponectin increased in the myoinositol group while it decreased in the control group ($P = 0.009$).

CONCLUSION: Myoinositol improves insulin resistance in patients with gestational diabetes.

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