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Myo-inositol may prevent gestational diabetes onset in overweight women: a randomized, controlled trial.

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Abstract

OBJECTIVE: To evaluate whether myo-inositol supplementation may reduce gestational diabetes mellitus (GDM) rate in overweight women.

METHODS: In an open-label, randomized trial, myo-inositol (2 g plus 200 µg folic acid twice a day) or placebo (200 µg folic acid twice a day) was administered from the first trimester to delivery in pregnant overweight non-obese women (pre-pregnancy body mass index ≥ 25 and < 30 kg/m²). The primary outcome was the incidence of GDM.

RESULTS: From January 2012 to December 2014, 220 pregnant women were randomized at two Italian University hospitals, 110 to myo-inositol and 110 to placebo. The incidence of GDM was significantly lower in the myo-inositol group compared to the placebo group (11.6% versus 27.4%, respectively, p = 0.004). Myo-inositol treatment was associated with a 67% risk reduction of developing GDM (OR 0.33; 95% CI 0.15-0.70).

CONCLUSIONS: Myo-inositol supplementation, administered since early pregnancy, reduces GDM incidence in overweight non-obese women.