Folic acid supplementation in pregnancy does not prevent preterm birth

Folic acid is a water-soluble vitamin of the B group. Data from observational studies showed that folic acid, which is commonly used to prevent neural tube defects, may have a role in the prevention of pregnancy complications such as spontaneous preterm birth, small for gestational age, preeclampsia and may lead to prolongation of pregnancy. The aim of our study was to summarize the level-1 evidence on the efficacy of supplementation with folic acid during pregnancy in prevention of spontaneous preterm birth. We included all randomized trials (RCTs) of asymptomatic singleton gestations who were randomized to prophylactic treatment with either folic acid supplementation or control (placebo or no treatment). Five randomized trials including 5,332 asymptomatic singleton gestations were included in the analysis. We found that women who received folic acid supplementation had a similar rate of spontaneous preterm birth less than 37 weeks (22.6% vs 22.9%), less than 34 weeks (7.1% vs 8.7%) and of preterm premature rupture of membranes (2.4% vs 2.9%) compared to control group. Regarding neonatal outcomes, we found no significant differences in birth weight, low birth weight and perinatal death. In summary, our study provides strong and high-quality evidence that a supplementation with folic acid during pregnancy does not prevent spontaneous preterm birth. Daily preconceptional folic acid supplementation remains the most important intervention to reduce the risk of neural tube defects.

Gabriele Saccone[1], ***Vincenzo Berghella***[2]
[1]*Department of Neuroscience, Reproductive Sciences and Dentistry, School of Medicine, University of Naples Federico II, Naples, Italy*
[2]*Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, Sidney Kimmel Medical College of Thomas Jefferson University, Philadelphia, USA*

Publication

Folic acid supplementation in pregnancy to prevent preterm birth: a systematic review and meta-analysis of randomized controlled trials.
Saccone G, Berghella V
Eur J Obstet Gynecol Reprod Biol. 2016 Apr