

Nutritional Supplements and Perinatal Complications

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Abstract

Objective

To assess the effect of antioxidant supplementation on premature labor, preterm birth, preeclampsia, birth weight, and fetal growth

Methods

In this retrospective study, 178 consecutive women (Group I), took the daily supplement compared to 179 matched control patients who took no supplement (Group II). The test supplements consisted of commercially available fruit and vegetable powder. Group 1 women consumed 2 fruit capsules before breakfast and 2 vegetable capsules in the evening prior to the evening meal.

Results

The study and the control groups were similar in demographic characteristics ($p = 0.168$). Compared to those who consumed the supplement, the following complications occurred significantly more often in the control group:

- (1) Cesarean delivery (47% vs 66%; OR 2.19, 95% CI 1.43, 3.37);
- (2) Preterm delivery before 32 weeks (0 vs 4%; OR 17.78, 95% CI 1.02, 310.96);
- (3) Delivery prior to 37 weeks (0 vs 20%; OR 88.32, CI 5.37, 1453.21);
- (4) Preeclampsia (0 vs 21%; OR 97.83, 95% CI 5.95, 1607.42);
- (5) IUGR (4% vs 9%; OR 2.58, 95% CI 1.04, 6.38);
- (6) Birth weight < 2500 gm (1% vs 12%; OR 12.41, 95% CI 2.87, 53.64);
- (7) Admission to neonatal intensive care unit ((NICU)); 0 vs 10%; OR 38.68, 95% CI 2.31, 648.92); and
- (8) Respiratory distress syndrome (0 vs 8%; OR 29.12; 95% CI 1.72, 494.10).

Conclusion

If these findings are confirmed in other studies, a simple inexpensive nutritional solution may be available to effectively address common and costly obstetric complications.

These findings were presented at the Nutraceuticals and Medicine autumn conference of the American Nutraceutical Association, October 11, 2003, Nashville, TN