

Vitamin C Supplements Beneficial During IVF Treatment

Investigating the impact of vitamin C supplementation on IVF outcomes.

Vitamin C supplementation may have a direct, favorable influence on IVF outcomes, but this beneficial effect appears to be attenuated by smoking, say researchers.

Prof. Igor Crha and colleagues from Masaryk University in Brno, Czech Republic, studied the influence of vitamin C on infertility treatment in 76 women undergoing IVF embryo transfer cycles. Thirty-eight women were assigned to receive vitamin C (ascorbic acid) in a daily oral dose of 500 mg, while the control group received no supplements. In each group, half of the women were smokers, and half non-smokers. Urinary and follicular fluid levels of ascorbic acid were measured at baseline, and at the time of oocyte retrieval.

After treatment, ascorbic acid levels in the follicular fluid were significantly higher in women who had received vitamin C supplements than in those who had not, indicating a local effect on the ovaries. In addition, the pregnancy rate was significantly higher in the vitamin C group than the controls (34 percent versus 24 percent). However, this effect was significantly more pronounced in non-smokers than smokers.

The findings support the benefits of vitamin C supplementation during IVF treatment, but the negative effect of smoking may be "a reason for asking women to cease smoking prior to infertility treatment," say the researchers.

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