Evaluation of serum zinc levels in women with recurrent spontaneous abortion

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ABSTRACT

Background & Aims: Recurrent spontaneous abortion (RSA) is defined as three or more consecutive pregnancy failure before the 20th week of gestation affecting approximately 1 in 300 pregnant women. Various causes including genetic, anatomical and endocrinological disorders, infections, environmental and immunological factors have been implicated in the etiology of RSA. Since the maternal zinc deficiency has been related to adverse effects on fetal outcome and pregnancy failure and this trace element has critical role in the mother immune system during pregnancy. In this study we aimed to investigate serum zinc levels in patients with RSA and normal pregnant women.

Materials & Methods: Serum was obtained from 243 non-pregnant women with at least three RSA and 73 non-pregnant women as a control, then were stored at -20°C. Zinc concentration were measured by using CBG Atomic Absorption Spectrophotometer Systems.

Results: Serum zinc levels in women with a history of RSA were 68.13±11.43 µg/dl, which was significantly lower than those in normal controls with the zinc concentration of 82.90±12.36 µg/dl (P<0.05).

Conclusion: Our results suggest that according to statistically significant reduction in the serum zinc in cases compared with age-matched controls, zinc deficiency may be one of the causes that contribute to miscarriage. Thus, more research is required to assess the benefit of zinc supplementation in infant health and survival.

Keywords: Zinc, pregnancy, Recurrent spontaneous abortion.