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Erythrocyte TAO and TBARS levels in patients who suffered missed miscarriage

Ayşe Nur AKSOY<sup>1</sup>

Hülya AKSOY<sup>2</sup>

Nurinnisa ÖZTÜRK<sup>2</sup>


Çağlar BULUT<sup>2</sup>

<sup>1</sup> Department of Obstetrics and Gynecology, Nenehatun Hospital, Erzurum - TURKEY

<sup>2</sup> Department of Biochemistry, Faculty of Medicine,

Atatürk University,

Erzurum - TURKEY

 [Keywords](#)  
 [Authors](#)



[medsci@tubitak.gov.tr](mailto:medsci@tubitak.gov.tr)

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**Abstract:** Aim: Missed miscarriage is a pregnancy-related condition, and lipid peroxidation and alterations in antioxidant levels may be of importance in the pathogenesis of this disorder. The aim of the study was to assess whether erythrocyte total antioxidant activity (TAO) and thiobarbituric acid reactive substance (TBARS) levels altered in patients who suffered missed miscarriage. Materials and methods: We measured levels of TAO and TBARS, as a lipid peroxidation marker, in erythrocytes of women with a diagnosed missed miscarriage (n = 36) during 7-16 weeks of pregnancy. The control group consisted of women (n = 34) with uncomplicated pregnancy similarly matched for maternal and gestational age. Results: We found a statistically significant decrease in erythrocyte TAO values in cases with missed miscarriage when compared to healthy pregnant group (P < 0.01). Additionally, mean TBARS levels were significantly higher in the missed miscarriage group than in the controls (P < 0.001). There was a negative correlation between erythrocyte TAO and TBARS (r = -0.60, P = 0.0001 for the missed miscarriage group and r = -0.44, P = 0.009 for the control group). Conclusion: The obtained results indicate that in erythrocytes oxidant-antioxidant defense system may be impaired in missed miscarriage.

**Key words:** TAO, TBARS, miscarriage

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