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PII: S0301-2115(17)30322-6
DOI: http://dx.doi.org/doi:10.1016/j.ejogrb.2017.06.045
Reference: EURO 9968

To appear in: *EURO*

Received date: 27-3-2017
Revised date: 23-6-2017
Accepted date: 30-6-2017

Please cite this article as: Eroglu Semra, Haskul İsmail, Aziz V*ü*sale, EnginYurtcu , Karatas Fatih, Neşelioğlu Salim, Erel Ozcan.Dynamic Thiol/Disulphide Homeostasis in Patients with Uterine Myoma.*European Journal of Obstetrics and Gynecology and Reproductive Biology* http://dx.doi.org/10.1016/j.ejogrb.2017.06.045

# Dynamic Thiol/Disulphide Homeostasis in Patients with Uterine Myoma

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## Abstract

**Background**: The aim of this study is to measure and compare the dynamic thiol and disulphide homeostasis between patients with Uterine Myoma (UM) and healthy subjects.

**Material and method**: A total of 54 patients with UM who were diagnosed by transvaginal ultrasonography and 37 age- and body mass index-matched healthy individuals were included in this study. Thiol/disulphide homeostasis was measured by a novel automatic spectrophotometric method.

**Results**: The mean serum native thiol, disulphide, and thiol levels were statistically lower in UM group than those in the control group [(284.66 ± 59.41 μmol/L vs. 320.98 ± 56.17 μmol/L, P < 0.0001), (17.27 ± 5.59 μmol/L vs. 22.38 ± 6.93 μmol/L, P < 0.0001) and (319.21 ± 61.69 vs. 365.76 ± 61.46 μmol/L, P < 0.0001), respectively]. There were no statistically significant differences in ratios of the disulphide/native thiol, native thiol/total thiol, and disulphide/total thiol among patients with UM versus healthy control group (P = 0.096, 0.092, 0.092, respectively).

**Conclusion**: It was found that the native thiol, total thiol, and disulphide levels in patients with UM decreased while the ratio of native thiol/disulphide remained unchanged.It is