

Accepted Manuscript

Title: Diminished ovarian reserve in women with transfusion-dependent beta-thalassemia major: is iron gonadotoxic?

Authors: Aysel Uysal, Gül Alkan, Ayşegül Kurtoğlu, Onur Erol, Erdal Kurtoğlu



PII: S0301-2115(17)30315-9
DOI: <http://dx.doi.org/doi:10.1016/j.ejogrb.2017.06.038>
Reference: EURO 9961

To appear in: *EURO*

Received date: 31-1-2017
Revised date: 17-6-2017
Accepted date: 25-6-2017

Please cite this article as: Uysal Aysel, Alkan Gül, Kurtoğlu Ayşegül, Erol Onur, Kurtoğlu Erdal. Diminished ovarian reserve in women with transfusion-dependent beta-thalassemia major: is iron gonadotoxic?. *European Journal of Obstetrics and Gynecology and Reproductive Biology* <http://dx.doi.org/10.1016/j.ejogrb.2017.06.038>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Title: Diminished ovarian reserve in women with transfusion-dependent beta-thalassemia major: is iron gonadotoxic?

Aysel Uysal, Gül Alkan, Ayşegül Kurtoğlu, Onur Erol, Erdal Kurtoğlu

Corresponding Author: Aysel Uysal, Associated Professor, Health Science University, Antalya

Training and Research Hospital, Department of Obstetrics and Gynecology

Gül Alkan, Gynecologist; Health Science University, Antalya Training and Research Hospital, Department of Obstetrics and Gynecology

Ayşegül Kurtoğlu, Clinical Biochemist; Health Science University, Antalya Training and Research Hospital, Department of Biochemistry

Onur Erol, Gynecologist; Health Science University, Antalya Training and Research Hospital, Department of Obstetrics and Gynecology

Erdal Kurtoğlu, Professor of Hematology; Health Science University, Antalya

Training and Research Hospital, Department of Hematology

Abstract:

Objective: Iron accumulation in the endocrine glands has been implicated in the aetiopathogenesis of decreased reproductive capacity in patients with beta-thalassemia major (β -TM). The aim of the current study was to investigate the serum concentration of anti-Müllerian hormone (AMH), a marker of **ovarian reserve, in women with transfusion-dependent β -TM.**

Study Design: In this case-control study, we recruited 43 women with transfusion-dependent TM and 44 age-matched healthy controls. Hormonal and haematological parameters, serum level of AMH, antral follicle count, and ovarian volume were assessed.

Results: Twenty-two of the 43 women were hypogonadotropic, 8 with primary amenorrhea and 14 with secondary amenorrhea. FSH, LH, estradiol, prolactin, and AMH levels; antral follicle count; and ovarian volume were significantly lower in women with TM compared with the control group ($p < 0.05$ for all).

Conclusion: AMH level and other ovarian reserve markers are significantly diminished in women with transfusion-dependent TM compared to age-matched controls. Our findings support a deleterious effect of iron overload on ovarian tissue.

Keywords: ovarian reserve; iron overload; thalassemia major

Download English Version:

<https://daneshyari.com/en/article/5694250>

Download Persian Version:

<https://daneshyari.com/article/5694250>

[Daneshyari.com](https://daneshyari.com)