

Elevated plasma total homocysteine in preeclampsia

Hasanzadeh, M., Ayatollahi, H., Farzadnia, M., Ayati, S., Khoob, M.K.

Department of Obstetrics and Gynecology, Ghaem Hospital, **Mashhad University of Medical Sciences, Mashhad, Iran**

[View references \(3\)](#)

Abstract

Objectives: To investigate the possible association between hyperhomocysteinemia and preeclampsia. **Methods:** A case-control study was carried out in the Departments of Obstetrics and Gynecology of the Ghaem Hospitals in Mashhad University of Medical Sciences, Mashhad, Iran from May 2005 to August 2006 and included 50 preeclamptic patients, 37 women with mild preeclampsia, and 38 women with severe preeclampsia, in addition we included 40 controls without pregnancy complications. Plasma total homocysteine was determined in all subjects by enzyme linked immunosorbent assay. **Results:** The 3 groups were similar in age and body. Patients with severe preeclampsia had significantly higher mean plasma levels ($12.8 \pm 7 \text{ mg/l}$) than normal pregnant women ($8.8 \pm 2.8 \text{ mg/l}$) and mild preeclamptic women ($10.8 \pm 2.7 \text{ mg/l}$) ($p < 0.05$). **Conclusion:** Women who developed severe preeclampsia have higher plasma homocysteine levels than women who remain normotensive throughout pregnancy.

Indexed Keywords

EMTREE drug terms: bilirubin; creatinine; glucose; hemoglobin; homocysteine; uric acid

EMTREE medical terms: adult; article; case control study; clinical article; controlled study; creatinine blood level; diastolic blood pressure; disease association; disease severity; enzyme linked immunosorbent assay; female; gestational age; hematocrit; hemoglobin blood level; human; hyperhomocysteinemia; preeclampsia; systolic blood pressure; thrombocyte; uric acid blood level

MeSH: Adult; Case-Control Studies; Female; Homocysteine; Humans; Pre-Eclampsia; Pregnancy

Medline is the source for the MeSH terms of this document.

Chemicals and CAS Registry Numbers: bilirubin, 18422-02-1, 730-70-4; creatinine, 1923-81-0, 70-27-0; glucose, 00-99-7, 84778-74-3; hemoglobin, 9008-02-0; homocysteine, 404-28-4, 7027-13-0; uric acid, 79-93-2; Homocysteine, 404-28-4

ISSN: 1329-0284 **CODEN:** SAMJD **Source Type:** Journal **Original language:** English

PubMed ID: 18021469 **Document Type:** Article