Reviewer’s report

Title: Determination of Interleukin-6 and Tumor Necrosis Factor-alpha concentrations in Iranian-Khorasanian patients with preeclampsia.

Version: 1 Date: 28 April 2005

Reviewer: A Hennessy

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Review of Determination of Interleukin-6 and Tumor Necrosis Factor-alpha concentrations in Iranian-Khorasanian patients with preeclampsia
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This study is a single institution review of the applicability of tests for IL-6 and TNF alpha for diagnosis of preeclampsia in an Iranian population. While the majority of studies support the notion that TNFa rises in preeclampsia, it is of some interest to note that this is not a universal finding in all populations. I think this paper makes a contribution to clinical literature regarding tests in preeclampsia but I would argue that this is not a test of pathogenetic mechanisms in preeclampsia and any claims to this end should be changed.

Abstract
In the abstract there are some grammatical errors. I would change the conclusion to reflect the diagnostic potential for serum cytokine tests rather than a claim that pathogenesis is being measured.
The sentence Furthermore, these findings suggest that serum TNF-a level does not associated with preeclampsia. Should be changed to Furthermore, these findings suggest that serum TNF-a level is not associated with preeclampsia.

Introduction
Preeclampsia is a relatively common, yet mysterious, disease pregnancy, of which the aetiology has not yet been fully elucidated. Should read Preeclampsia is a relatively common, yet mysterious, disease in pregnancy and the aetiology has not yet been fully elucidated.

TNF-a is a potent modulator of immune and inflammatory responses that is produced by macrophages, lymphocytes and trophoblasts and contributes to the trophoblast growth and invasion. Should read TNF-a is a potent modulator of immune and inflammatory responses that are produced by macrophages, lymphocytes and trophoblasts, and contributes to the trophoblast growth and invasion.

Methods
While I agree that these methods include the application of commercially available ELISAS, the variation of these results in the literature reflects differences in assay performance as well as sample handling. This paper would benefit from a description of the assay sensitivity and lower limits of detection and some information about assay performance. Are the results normally distributed? This section states that the results are given as median, yet the means are presented in the results.
Maybe a non-parametric comparison would be more appropriate given the relatively small number of patients in this trial.

Results as above

Discussion
Although the pathogenesis of preeclampsia is still unknown, immunologic and inflammatory causes may play an important role.
Should read
Although the pathogenesis of preeclampsia is still unknown, immunologic and inflammatory causes may play an important role.
The discussion suffers from a lack of balance there are publications supporting an increase in TNFa and these should be cited. The possible reasons for the different finding in this population should be explored. These results reflect a few patients with very high readings in the preeclamptic group is this some reflection of clinical severity?

Figures
The legends should reflect the source of cytokine e.g serum TNFa etc

Tables
The gestation age is not evenly matched the range of gestational ages might be helpful both groups appear to be over 32 weeks?

If these concerns can be addressed I would think this paper makes a contribution to clinical care of preeclampsia in clarifying whether cytokine tests at diagnosis are of value in all populations.