

Alterations in lipid peroxidation and T cell function in hyperemesis gravidarum

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Objective

To investigate serum adenosine deaminase (ADA) activity as a marker of T lymphocyte activation and parameters of oxidative stress and antioxidant defense, namely circulating malondialdehyde (MDA), catalase (CAT) and glutathione peroxidase (GPx) in pregnant women with hyperemesis gravidarum (HG).

Methods

Serum ADA activity as a marker of T lymphocyte activation and parameters of oxidative stress and antioxidant defense, namely circulating malondialdehyde (MDA), catalase (CAT) and glutathione peroxidase (GPx) were investigated in 40 pregnant women with hyperemesis gravidarum and 40 with healthy uncomplicated pregnancy in a prospective case control study design.

Results

Blood urea nitrogen and free thyroxine levels were significantly higher. Sodium, potassium, thyroid stimulating hormone levels were significantly lower in women with HG than those in the control group. Although serum ADA and CAT were measured to be higher in HG group, the difference was not significant. Serum MDA and GPx levels were significantly elevated in women with HG when compared to the ones without HG.

Conclusion

The significance of changes in lipid peroxidation and T-cell activation in the pathogenesis of HG and whether this is a cause or a compensatory reaction to HG and it requires further studies.