
a study on the possible immunological aspects of preeclampsia

ahmed said ahmed osman

The aetiology of preeclampsia is so far unknown nevertheless both clinical and experimental findings suggest the possibility of immunogenetic factor Bolis et al. (1987). The aim of this work is to evaluate some immunological parameters associated with pre-eclampsia compared to normal pregnant and normal non pregnant women. Thirty four pre-eclamptic females were included in this study, they were compared to fourteen normal pregnant females, also compared to ten non pregnant females. The following investigations were done for the three groups- Studying the humoral mechanism through measurements of : * Immunoglobulins (IgG, IgM, IgA and IgE) * Complement C3 and C4 * Circulating immune complexes. - Studying the cellular immune response through : * Numerical evaluation of T-lymphocytes by E-rosettes. * Studying their function through. Blast transformation. MIF test. The results obtained showed the following :- Significant decrease in IgG in pre-eclamptics compared to both normal pregnant and non pregnant. - No significant difference in IgM, IgA, complement C3 and C4 and circulating immune complex between the tested groups. - Significant increase in IgE in pre-eclamptics compared to both normal pregnant and non pregnant groups. - As regards the total number of T-lymphocytes as measured by E-rosette methods. Significant decrease in pre-eclampsia compared to normal pregnant. - Highly significant decrease compared to non pregnant. As regards the blast transformation of T-lymphocytes : Significant decrease between pre-eclampsia and normal pregnant. Highly significant decrease between pre-eclampsia and normal non pregnant women. As regards the percentage of inhibition of migration there was : Significant decrease between pre-eclampsia and both pregnant and non pregnant groups. - In conclusion, there was hyporesponsiveness of the immune system in pre eclampsia but it is not known whether this result is due to pre-eclampsia itself or associated phenomena with the disease, longitudinal studies for patients during pregnancy and post partum period for investigating both humoral and cellular immunity Would be advised