

***Study the Correlation Between Biochemical
Characters and Oxidant-Antioxidant Status of
Hypertensive and Preeclampsia Pregnant Patients***

A Thesis

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Abstract

Pregnancy-induced hypertension (PIH) is a major pregnancy complication that leads to maternal mortality. Oxidative stress (OS) occurred during PIH because of an excessive increase in free radical and a decrease in antioxidant capacity.

The present study aimed to evaluate lipid peroxidation products as serum MDA and antioxidant status in hypertensive complications of pregnancy by measuring the activity of Cp and estimate the serum concentration of Vit C, Ald, Alb, urine ACR, as well as to highlight the possible correlations of each Hb and MAP with those parameters in the patient groups. This study was conducted at Al Samawa maternity and children teaching hospital in collaboration between maternity and biochemistry departments from October 2020 to February 2021. Forty healthy women with normal, uncomplicated pregnancy, divided into 20 subjects at 2nd trimester (2nd C) and 20 subjects at 3rd trimester (3rd C); 40 women with PIH (20 subjects as 2nd H and 20 subjects as 3rd H) and 40 women with pre-eclampsia (20 subjects for each 2nd PE and 3rd PE). The results revealed a weak positive correlation in Hb levels with serum MDA, Cp, Vit.C and no correlation with serum Alb. The results also revealed to weak negative correlation with Ald, serum ACR,urine ACR, along with 2nd and 3rd trimesters. The results also revealed strong positive correlation in MAP with serum MDA, Cp, serum Alb, serum ACR , urine ACR and weak positive correlation with Hb. The results showed to weak negative correlation in MAP with serum Ald and Vit.C along with 2nd and 3rd trimesters. The results also displayed a positive correlation between urine ACR and serum ACR.The present study demonstrated that Hb levels have significant increasing in the 2nd PE compared with each 2nd H and 2nd C group. This parameter showed nonsignificant difference among all groups at the 3rd trimester. Each serum MDA, Cp and urine ACR levels has a significant increasing in PE compared with H and healthy groups, contrary to Ald and Vit.C revealed nonsignificant differences among each groups at each trimester. The results Implied a significant increase of serum Alb levels in PE and H patient groups compared with the healthy controls at each trimester. The study has clarified that each serum ACR and MAP levels have significant increasing in PE compared with H and significant increase in H compared with healthy control at 2nd trimester, whereas, at the 3rd trimester MAP levels revealed significant increasing in H and PE groups compared with the healthy control.