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Oral

Periodic Assessment Of Antenatal And Post Natal Serum Endothelin-1 and Nitric Oxide Levels In Hypertensive Disorders Of Pregnancy

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Introduction: Hypertensive Disorder of Pregnancy (HDP) is an independent risk factor of cardiovascular (CVS) disease with persistent endothelial dysfunction, that occurs after the initial insult during pregnancy and persists post partum postulated to be the pathophysiology. Endothelin-1 (ET-1), a potent vasoconstrictor, has been identified as a pivotal mediator in both essential hypertension and HDP. Disturbances in Nitric Oxide (NO) bioavailability found in endothelial dysfunction may increase susceptibility to cardiovascular diseases such as hypertension.

Materials and Methods: Thirty six pregnant women at 30-36 weeks period of gestation from the following categories (i) pregnancy induced hypertension (PIH) (ii) chronic hypertension during pregnancy (CH) and (iii) normal pregnant women (Control). Blood pressure indices measurements and sample collection was done at antepartum (30-36 weeks), post partum (8 weeks and 12 weeks). Endothelin-1 was measured using the Human ET-1 (Endothelin-1) ELISA Kit and serum NO was measured using the Nitric Oxide (total) detection kit. **Results:** All blood pressure indices were significantly higher in HDP patients compared to control during antenatal and post partum periods. Serum ET-1 was significantly higher in patients with HDP compared to control during antenatal until 3 months post partum. This was accompanied by significantly lower levels of serum NO in HDP patients. **Conclusion:** ET-1 levels in patients with history of HDP irrespective of post partum blood pressure contributes to persistent endothelial dysfunction.