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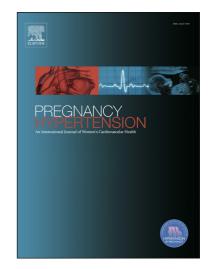
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## **ACCEPTED MANUSCRIPT**

# PREGNANCY AS AN EARLY STRESS TEST FOR CARDIOVASCULAR AND KIDNEY DISEASE DIAGNOSIS

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#### Abstract

**Objectives:** Pregnancy is a cardiometabolic and renal stress test for women, primarily when associated with hypertension syndrome, which can have deleterious effects in the long term. We undertook this study to make a long-term evaluation on these women.

**Study design:** A retrospective cohort study was conducted to investigate voluntary women who had pregnancy-induced hypertension syndrome versus normal pregnancy.

**Main outcome measures:** We evaluated a total of 85 women, divided in case (n=25) and control (n=60) groups, by clinical, anthropometric and epidemiological profiles, general, metabolic and renal tests, and risk stratification for cardiovascular disease (CVD) and chronic kidney disease (CKD).

**Results:** The case group showed a higher incidence of hypertension (P=0.003), shorter period between its diagnosis and end of pregnancy (P<0.001) and lower age at diagnosis (P=0.033); higher weight (P<0.001), body mass index (BMI) (P<0.001), waist-to-height ratio (P=0.001) and abdominal circumference (P<0.001); higher fat percentage (P=0.004) and weight to lose (P<0.001) as measured by bioimpedance; lower estimate glomerular filtration rate (eGFR) by the *Chronic Kidney Disease Epidemiology Collaboration* (CKD-EPI) equation (P=0.021), greater difference between estimated vascular age and real age (P=0.008) according to  $Framingham\ Risk\ Score\ (2008)$  and higher frequency of metabolic syndrome (P<0.001).

Conclusions: Women who had pregnancy-induced hypertension syndrome were found with a higher incidence of obesity, metabolic syndrome and hypertension, earlier onset of hypertension, higher estimated vascular age and lower eGFR. These findings reinforce the importance of investigating the history of hypertension syndrome in pregnancy, which should be considered an indicator to be followed long term after childbirth.

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