

Insights into adverse pregnancy outcomes prevention in chronic hypertension

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Objective. To determine optimal strategies to reduce the incidence of adverse pregnancy outcomes in women with chronic hypertension.

Materials and Methods. Women diagnosed with chronic hypertension were retrospectively selected from our electronic database from January 2019 to January 2024. The primary endpoint was the occurrence of adverse pregnancy outcome described as the onset of preeclampsia (PE) or foetal growth restriction (FGR).

Results. 219 women were diagnosed with chronic hypertension, of which 158 delivered in our hospital and were included in the final cohort. Mean body mass index at delivery was 30.8 kg/m² and mean age 36 years. PE and FGR occurred in 23% and 8% of patients, respectively. Blood pressure was managed by nifedipine (61%), labetalol (10%) or methyldopa (5%). As

concerns prophylaxis, 79% of patients were administered acetylsalicylic acid (ASA) while 16% low molecular weight heparin (LMWH) as thromboprophylaxis, of which 86% ASA + LMWH. The rate of PE was similar in patients taking ASA or not (21% vs 25%), while it significantly differed in those administered with LMWH (9% vs 25%, $p = 0.041$). FGR occurrence did not differ according to the use of prophylaxis. High resistance at uterine artery Doppler velocimetry at 24/25 weeks of gestation was associated with PE (51% vs 12%; $p < 0.001$) and FGR (18% vs 7%; $p = 0.040$).

Conclusions. Increasing numbers of pregnancies are complicated by chronic hypertension because of age at conception together with the global epidemic of obesity. Thromboprophylaxis with LMWH reduces the onset of superimposed PE, independently from ASA intake.