Soluble endoglin and uterine artery Doppler ultrasonography as markers of progression to preeclampsia in women with gestational hypertension: nested case-control study.

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Abstract

Objective: To determine the clinical usefulness of the soluble endoglin (sEng) and uterine artery Doppler ultrasonography as markers of progression to preeclampsia in women with gestational hypertension (GH). Design: Nested case-control study. Setting: Mexico City, Mexico. Population or sample: 77 singleton pregnant women with GH. Methods: Cases were women who progress to preeclampsia (n=36) and controls were those who did not (n=41). Serum sEng concentrations and uterine artery Doppler ultrasonography were performed at enrollment. Main outcome measures: Progression to preeclampsia and occurrence of adverse outcomes, such as preterm delivery (PD) <37 and <34 weeks of gestation, small-for-gestational-age (SGA) infant, and fetal growth restriction (FGR). Results: Women with sEng values in the highest tertile had higher risk of progression to preeclampsia, PD<34 weeks of gestation, and FGR, odds ratios (ORs) [?] 3.7. Patients with abnormal uterine artery Doppler pulsatility index (>95th percentile) had higher risk of progression to preeclampsia, PD <34 weeks of gestation, SGA infant, and FGR (ORs [?] 3.3). The presence of notch was associated with higher risk of progression to preeclampsia, PD <37 and <34 weeks of gestation, SGA infant, and FGR (ORs [?] 2.9). However, logistic regression analysis revealed that only serum sEng was a significant and independent risk factor for progression of GH to preeclampsia, PD <34 weeks of gestation, and FGR (ORs [?]3.1). Conclusions: sEng is a reliable biomarker of progression to preeclampsia, PD and FGR in patients with GH. Compared to sEng, uterine artery Doppler ultrasound has limited clinical usefulness as marker.

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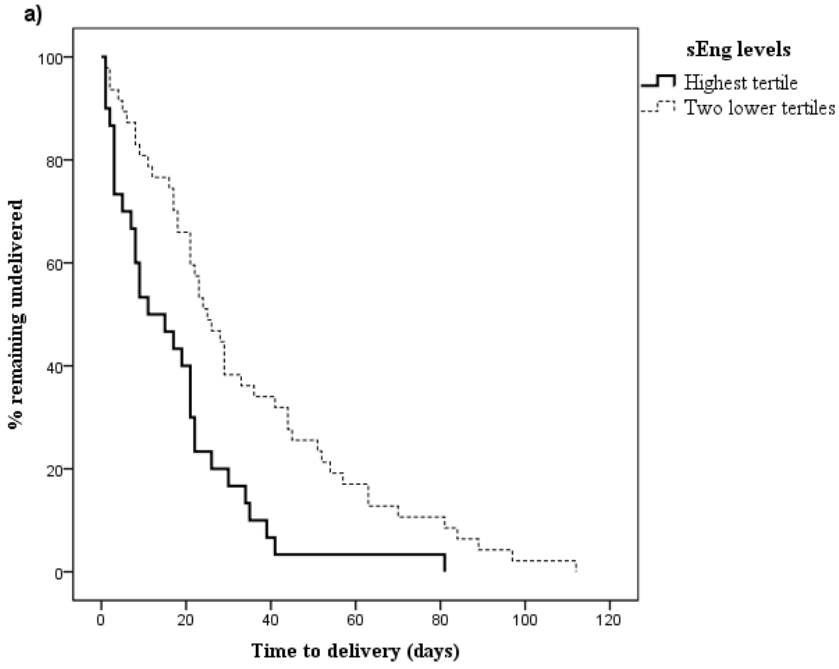
a)



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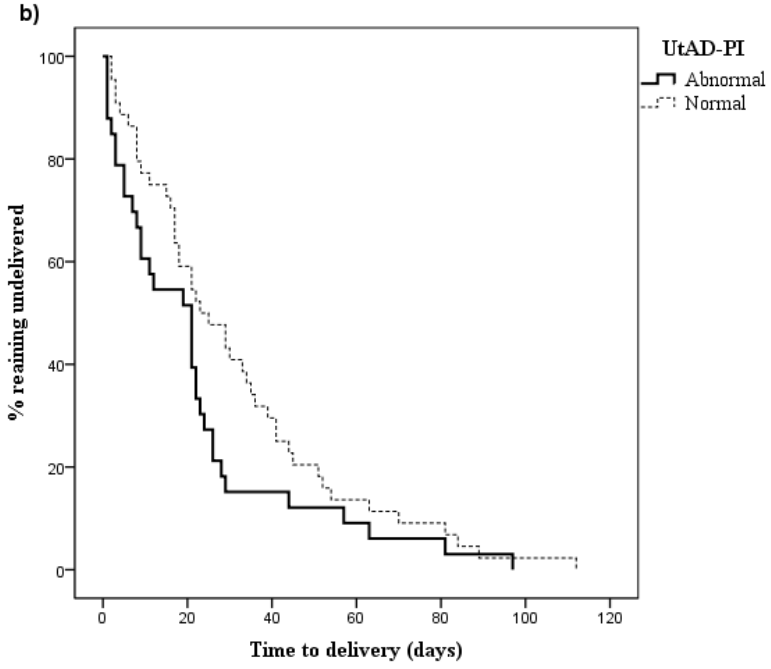

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