Determination of multiples of median for biophysical and biochemical markers of preeclampsia in Mexican population

Torres J, Nieto E, Maldonado L, Coronel F, Martinez R

Servicios de Salud Pública de la Ciudad de México, Ciudad de México, Mexico

Objective

Maternal mortality as a public health problem, evident inequality of access, availability and quality of health services, defined as an indicator of global development. The main direct causes of maternal death are hypertensive disorders, bleeding and infections. It has become clear in the past years the need for prenatal care, maternal history combining data from biophysical and biochemical markers to be able to define the specific risk of preeclampsia from the first trimester of pregnancy. OBJECTIVE: To obtain data for calculating Multiples of Median for the pulsatility index of the uterine arteries, biochemical markers and mean arterial pressure, in order to estimate the individual risk for development preeclampsia.

Methods

A prospective, longitudinal and analytical study in pregnant patients in the first trimester. Assessing risk factors in the clinical history, gestational age Craneo length Cauda, pulsatility index measurement uterine artery Doppler, bilateral blood pressure and serum levels of placental growth factor(PLGF).

Results

292 patients completed the protocol, finding significant difference in uterine artery MoM 1. 20; UtPI = 1. 20 * (2. 6922-0. 01455 * GestAge) 28 women (9. 5%) were in an area at high risk for preeclampsia; (N = 292) were followed up to obstetric resolution; 23 women (4. 45%) developed preeclampsia, 12 of them were identified in a high risk area from 11-13. 6 weeks and only one was classified in a low risk area developing preeclampsia.

Conclusion

Advances show that can detect patients at risk of preeclampsia as early as 11 to 13. 6 weeks, using biophysical and biochemical markers; which it must be corrected in the Mexican population to obtain an algorithm with specific reference values, allowing early detection and significantly decreasing maternal and perinatal morbidity and mortality.