

Diagnostic capacity of the uterine artery pulsatility index for the diagnosis of severe pre-eclampsia

AUTORES/INSTITUCIONES: L. Castañeda Cuba , J. Vásquez Alvarado, C. Angulo Seijas, Z. Alva Huaylla, La Libertad, Hospital Belén De Trujillo, Trujillo- PERÚ Universidad Privada Antenor Orrego Facultad de Medicina Humana, Trujillo-PERÚ; E. Vera Loyola, Lima, Hospital Nacional Docente Madre Niño San Bartolomé, Universidad Nacional Mayor de San Marcos, PERU.

Objectives Pre-eclampsia is a complication during pregnancy, the placenta plays an important role in the pathophysiology and specifically in severe cases. Laboratory criteria suggesting endothelial injury are not performed immediately, but a maternal-fetal Doppler evaluation is. The aim of the present study was to determine the diagnostic capacity of the average pulsatility index (IPU) of the uterine arteries (>95th percentile for gestational age) to identify pregnant women with severe preeclampsia. *Methods* The present diagnostic testing study included 138 pregnant women referred for gestational hypertension to classify them as pre-eclampsia using several laboratory tests that indicated endothelial injury (proteinuria, liver profile, and complete blood count). The Maternal-Fetal Doppler Protocol of the Hospital Clínic de Barcelona was used, and the Doppler pulsatility index of the uterine arteries (IPU) was measured on 3 occasions, identifying those patients who had the IPU > 95th percentile for gestational age. All pregnant women were hospitalized to complete their analyses and to determine, according to ACOG criteria, who met the criteria for severe pre-eclampsia. *Results* Of the 138 pregnant women, 99 pregnant women (71.7%) had severe preeclampsia and 39 pregnant women (28.3%) did not have severe pre-eclampsia. Using the IPU above the 95th percentile and the 2x2 table, a sensitivity of 83.8%, a specificity of 48.7%, a positive predictive value of 80.6% and a negative predictive value of 54.3% are included.

Doppler assessment of the UIP >95th percentile is a useful and rapid tool to identify patients with severe pre-eclampsia, especially in countries where diagnosis of pre-eclampsia by laboratory studies of endothelial injury is delayed.