

Impedance cardiography in evaluation of hemodynamic status of preeclampsia - two case reports

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ABSTRACT

Preeclampsia is a severe disorder that can complicate pregnancy with serious consequences for mother and newborn. Although a specific hemodynamics profile can be observed during normal pregnancy, preeclampsia is characterized by several specific changes like increased cardiac output, sodium and water retention leading to blood volume expansion, reductions in systemic vascular resistance and systemic blood pressure. Impedance cardiography is a noninvasive method which can provide hemodynamic parameters in pregnancy. We present two cases of pregnancy complicated with preeclampsia and the hemodynamic particularities each of them has. The first one includes a patient with early onset of preeclampsia. She was monitored with impedance cardiography. We observed that the index decreased in the second trimester of pregnancy. The second case is focused on recurrent preeclampsia. The hemodynamic profile determined by impedance cardiography showed increased systemic vascular resistance beginning in the second trimester of pregnancy until delivery. Impedance cardiography is a noninvasive method, but its' accuracy in monitoring patients with high risk of preeclampsia should be proved with randomized control trials.

Key words: preeclampsia, impedance cardiography, haemodynamics

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