Changes and clinical significance of blood rheology and hemodynamics in patients with hypertensive disorder complicating with pregnancy

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[ABSTRACT] Objective: To investigate the changes and clinical significance of blood rheology and hemodynamics in patients with hypertensive disorder complicating pregnancy. Methods: A total of 146 cases of pregnant women with hypertensive disorder complicating pregnancy (observation group) and 145 cases of healthy pregnant women (control group) during the same period were enrolled in this study, the automatic and non-invasive blood viscosity meter monitor were applied in the two groups of pregnant women and blood hemorheology dynamics indicators were compared. Results: The whole blood viscosity in the observation group (including high-cut, middle-cut, low-cut), plasma viscosity, hematocrit and fibrinogen were significantly higher than that in the control group, the difference was of statistically significant (P<0.05). The mean arterial pressure (MAP) in observation group was significantly higher than the control group, and cardiac output (CO), cardiac index (CI), stroke volume (SV), cardiac index (SI) and vascular compliance (AC) was significantly lower than that in the control group (P<0.05). Conclusion: The combination of monitoring maternal blood rheology hemodynamic and hypertensive disorders indicators in pregnancy women can be used for predicting the occurrence of hypertensive disorder complicating pregnancy, treatments adjusted according to the above parameters can improve the situation of blood rheology and hemodynamics in patients with hypertensive disorder complicating pregnancy, thus it is useful for prevention and control of further deterioration of hypertensive disorders.

[KEY WORDS] Hypertensive disorder complicating pregnancy; Rheology; Hemodynamics; Artery spasm