

Placental retinol-binding protein-4 expressions in patients with preeclampsia and normal pregnant women

Hyun-Joo Seol¹, Eui Jung¹, Min-Jeong Oh², Hai-Joong Kim², Seung-Bo Kim¹

¹Department of Obstetrics & Gynecology, College of Medicine, Kyung Hee University,

²Department of Obstetrics & Gynecology, College of Medicine, Korea University

Objectives (목적)

Insulin resistance is observed in the third trimester of normal pregnant women and often exaggerated in patient with preeclampsia. Recently, retinol-binding protein 4 (RBP4) is thought to be involved in insulin resistance. The Aim of this study was to investigate RBP4 expressions in placenta of patients with preeclampsia and normal pregnant women in the third trimester of pregnancy.

Methods (연구 방법)

Sixteen patients with preeclampsia and 11 normal healthy pregnant women were included in this study. Placental RBP4 expression was determined by Western blot analysis and immunohistochemistry. mRNA was quantified by real time PCR in placental tissues.

Results (결과)

In Western blot analysis, RBP4 was expressed in placenta of patients with preeclampsia but not expressed in placenta of normal pregnant women. Placental RBP4 mRNA expression was more increased in patients with preeclampsia (median 6.01 fold; range 3.00~8.71) than normal pregnant women (median 3.08; range 1.47~4.56; $p=0.007$). There were no significant correlations between RBP4 expressions and maternal BMI, neonatal weight or placental weight.

Conclusions (결론)

Placental RBP4 expression was up-regulated in patients with preeclampsia. This result suggests that RBP4 may play a role in exaggerated insulin resistance in preeclampsia.