

Urinary nephrin as a marker of preeclampsia

Ga Hyun Son, Yong Won Park, Young Han Kim, Ja Young Kwon

Department of Obstetrics and Gynecology, Yonsei University Health System

Objectives (목적)

the objective of this study was to examine whether nephrin is present in the urine of patients with preeclampsia.

Methods (연구 방법)

Urine samples from 18 women with preeclampsia and 12 normotensive women were obtained at the time of diagnosis of preeclampsia, at close to delivery, and at 3 days after delivery. Western blot analysis was performed to assess nephrin expression in the urine. Densitometric values for nephrin expression in normal and preeclamptic urine samples were compared.

Results (결과)

Nephrin was detected in all of preeclamptic urine samples by Western blotting, whereas normotensive control subjects except for one did not exhibit nephrin specific protein bands in the urine. The expression of nephrin was significantly higher in preeclamptic urine samples compared with normal pregnancies ($p=0.004$). Moreover, nephrin expression in the urine was significantly higher at the time of diagnosis of preeclampsia than at 3 days after delivery.

Conclusions (결론)

Nephrinuria is a highly sensitive and specific marker for preeclampsia. It may represent podocyte damage, which could result in proteinuria.