Clinical predictors implicated in the incidence of Acute Pyelonephritis during Antepartum

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Objectives: Acute pyelonephritis is common during pregnancy, and increases the risk of maternal and fetal outcome. However, it has not been clearly revealed yet which demographic and clinical characteristics are associated with the incidence of acute pyelonephritis during pregnancy.

Methods: Study data were collected from the Korea National Health Insurance Claims Database of the Health Insurance Review and Assessment Service. Women who had delivery between 2010 and 2014 in Korea and records for health examination within one year of pregnancy were enrolled. A model of multivariate logistic regression analysis was performed to evaluate the risk of acute pyelonephritis during pregnancy.

Results: Among 370,248 women, 2,526 patients were treated under admission for acute pyelonephritis during pregnancy. Younger age, previous history of APN within one year of pregnancy, and abnormal results of health examination prior pregnancy as high fasting glucose (>100mg/dL) and proteinuria were associated with increasing risk of acute pyelonephritis during pregnancy.

Conclusions: Certain maternal demographic and clinical characteristics such as younger age, history of APN, high glucose and proteinuria, were associated with the incidence of acute pyelonephritis during pregnancy, which should be monitored closely during antenatal care.