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Propensity score matched analysis를 이용한 임신과 IgA신증의 예후탐구

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Pregnancy and Long-term Renal Prognosis of IgA Nephropathy: A Study Based on Propensity Score Matched Analysis

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Background: Both young IgA nephropathy (IgAN) women and clinicians have a concern whether and how pregnancy affects her renal prognosis. However, the impact of pregnancy on long-term renal outcomes remains controversial.
Methods: This study included women with biopsy- proven IgAN from Jan 1979 to Aug 2013 at Seoul National University Hospital. A survey of pregnancy and delivery experiences was performed by medical chart abstraction and personal contact using cell phone. Primary outcome was progression to end-stage renal disease (ESRD) and doubling of serum creatinine. We compared these outcomes between women with and without pregnancy history by the 2:1 propensity score matched (PSM) analysis using covariate with age, estimated glomerular filtration rate (eGFR), total cholesterol, albumin, proteinuria and pathologic scores.
Results: A total of 803 IgAN women were included, and the mean follow up duration was 112.0±76.2 months. Among them, women with pregnancy experiences were 11.1% (n=89). Before PSM, IgAN women with pregnancy history were younger, lower systolic blood pressure, higher eGFR and more proportion of RAS blockade use. After PSM, these differences disappeared. Matched analyses revealed that pregnancy affect neither the ESRD progression (p=0.311) nor creatinine doubling (p=0.431). Interestingly however, we found that there was a significant interaction between pregnancy and eGFR for renal survival, so we performed additional stratification analysis according to eGFR group. Multivariate Cox regression analysis revealed that pregnancy affected the renal disease progression (adjusted hazard ratio, 3.60; 95% confidence interval, 1.26-10.3, p=0.017) in IgAN women with impaired renal function with eGFR <60 mL/min/1.73m^2.
Conclusion: In this study, we suggested that pregnancy could contribute to renal function deterioration IgAN women with impaired renal function. Further research exploring maternal and fetal outcome should be warranted to clarify the effect of pregnancy on IgAN women.

Key Words: IgA신증, 임신, 예후
IgA nephropathy, Pregnancy, Prognosis