JEIMP
The Journal of European Internal Medicine Professionals

Letter to Editor

Comment On: Pregnancy and The Kidneys: A Brief Systematic Review

Author(s)
Hayal Uzelli Şimşek

J Eur Int Prof. Year; 2025, Volume: 3, Issue: 2
Submitted at: 28.02.2025 Accepted at: 08.03.2025 Published at: 25.03.2025
doi 10.5281/zenodo.15068640

Affiliation(s)
Kocaeli University, Faculty of Medicine, Department of Obstetrics and Gynecology, Kocaeli, Türkiye

Corresponding Author: Hayal Uzelli Şimşek, M.D., Kocaeli University, Faculty of Medicine, Department of Obstetrics and Gynecology, Kocaeli, Türkiye. **E-mail:** jinekolog.dr@hotmail.com

Dear Editor;

In the valuable article titled "*Pregnancy and The Kidneys: A Brief Systematic Review*" in the first issue of the Journal of European Internal Medicine Professionals (2023), the author highlights the importance of preeclampsia, urinary tract infections, and the management of dialysis and kidney transplant patients during pregnancy (1). I would like to add a few data points from the perspective of obstetrics to these compact review.

Gestational hypertension and preeclampsia are hypertensive disorders that can improve postpartum. Globally, in 2019, 18.08 million cases of preeclampsia were identified, and its prevalence continues to rise. Severe preeclampsia causes 70,000 maternal deaths and approximately 500,000 fetal/neonatal deaths each year (2). I would like to emphasize once again that, while gestational hypertension is characterized by elevated blood pressure, it does not include proteinuria or end-organ dysfunction or symptoms. However, as mentioned in the article, women with gestational hypertension are at risk for developing preeclampsia and should be carefully monitored (3).

In preeclampsia, elevated blood pressure can be accompanied by proteinuria. However, the presence of end-organ dysfunction symptoms in the absence of proteinuria may still lead to the diagnosis of preeclampsia. These symptoms, as described in the article, include thrombocytopenia, pulmonary edema, elevated creatinine and transaminase levels, and neurological and visual symptoms. In severe cases of the disease, these end-organ dysfunctions become more pronounced. The possibility of preeclampsia should not be overlooked in the absence of proteinuria (2,3).

The primary treatment for preeclampsia is delivery. If end-organ dysfunction is present, the severity of the condition is assessed, and the timing of delivery is determined based on gestational age. When pregnancy reaches ≥37 week, if preeclampsia worsens, delivery can be planned. In pregnancies ≥34+0 weeks, delivery is indicated if severe preeclampsia develops. In cases of preeclampsia with stable maternal and fetal conditions, management with close monitoring and expectant management is recommended. In pregnancies under 34 weeks, the decision for delivery is made if maternal and/or fetal conditions are unstable, if the pregnancy is not yet at the lower limit of neonatal viability (<23 weeks), or if labor or active rupture of membranes is detected. Otherwise, expectant management should be preferred if possible (4).

It is known that adverse pregnancy outcomes are increased in chronic kidney disease (CKD). Hypertension, proteinuria, fibrinogen levels >4 g/L, serum albumin levels ≥30 g/L, and uric acid levels >260 mmol/L (~4.4 mg/dL) have been identified as independent risk factors for preeclampsia in most patients with Stage 1 CKD . Women with advanced CKD have been found to have higher risks of preeclampsia, premature birth, and neonatal intensive care unit admission (5). It is known that the kidney plays an important role in the development of preeclampsia and that it can trigger endothelial and placental dysfunction, and conversely, the kidney can be damaged by endothelial dysfunction due to preeclampsia (6).

In conclusion, a multidisciplinary approach involving both nephrology and obstetrics is essential to optimize

the management and outcomes of pregnancy-related hypertensive disorders, particularly in patients with underlying kidney disease.

DECLARATIONS

Ethics committee approval: Not necessary.
Financial disclosure: None.
Conflicts of interest: Author declares none.
Acknowledgments: None.
AI: Not applied

REFERENCES

1. Bardak Demir S. Pregnancy and The Kidneys: A Brief Systematic Review: Pregnancy and Kidneys. *J Eur Int Med Prof.* 2023;1(1):16–19. https://doi.org/10.5281/zenodo.7562220
2. Vatish M, Powys VR, Cerdeira AS. Novel therapeutic and diagnostic approaches for preeclampsia. *Curr Opin Nephrol Hypertens.* 2023;32(2):124-133. doi: 10.1097/MNH.0000000000000870.
3. American College of Obstetricians and Gynecologists (ACOG). Practice Bulletin No. 222: Gestational Hypertension and Preeclampsia. *Obstet Gynecol.* 2020;135(6):e237-e260. doi: 10.1097/AOG.0000000000003891.
4. American College of Obstetricians and Gynecologists (ACOG). Gestational Hypertension and Preeclampsia: ACOG Practice Bulletin, Number 222. *Obstet Gynecol.* 2020;135(6):e237-e260. Reaffirmed 2023. doi: 10.1097/AOG.0000000000003891.
5. Kanasaki K. Risk of preeclampsia in pregnant individuals with chronic kidney disease: a framework from Chinese cohort. *Hypertens Res*. 2024;47(10):2948-2951. doi:10.1038/s41440-024-01824-2
6. DaSilva Santos I, Ricart Calleja M, Piccoli GB. Pre-eclampsia: An important risk factor for chronic kidney disease frequently and unfortunately forgotten. *Nefrologia (Engl Ed)*. 2024 May-Jun;44(3):453-454. doi: 10.1016/j.nefroe.2024.06.002.