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Letter to Editor

Early Diagnosis of Asymptomatic Maternal Hydronephrosis: A Recommendation for Routine Renal Ultrasound Screening at 24–28 Weeks

Yakup Baykus[1], Alihan Tigli[1], Nart Gorgu[2], Oguzhan Karakoc[3], Sefer Ustebay[4] and Rulin Deniz[1]*

[1]Department of Obstetrics and Gynecology, Bandırma Onyedi Eylül University, Turkey

[2]Department of Urology, Bandırma Onyedi Eylül University, Turkey

[3]Department of Obstetrics and Gynecology, Bandırma Training and Research Hospital, Turkey

[4]Department of Pediatrics, Bandırma Onyedi Eylül University, Turkey

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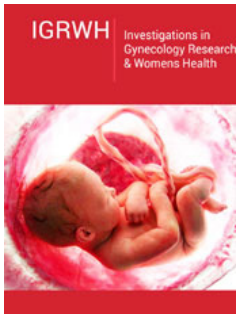

***Corresponding author:** Rulin Deniz, Department of Obstetrics and Gynecology, Bandırma Onyedi Eylül University, Bandırma, Turkey

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The physiological and hormonal changes that occur in the maternal renal system during pregnancy act as a sort of 'stress test' for the urinary system [1]. Although this process is often considered a physiological adaptation, it should not be forgotten that asymptomatic hydronephrosis can progress to clinically significant outcomes in some pregnant women. Although hydronephrosis is common during pregnancy, in a small proportion of cases, severe obstruction, refractory urinary tract infection, and the need for interventional treatments such as a Double-J stent or nephrostomy may develop [2.] It has also been reported that high-grade dilations are an important factor in predicting the need for surgical intervention [3].

We therefore believe that routine maternal renal ultrasound screening, to be performed between the 24th and 28th weeks of pregnancy, should be incorporated into antenatal care. As with screening for gestational diabetes, identifying asymptomatic but high-risk cases during this critical period may help reduce maternal and fetal complications. A single-session renal ultrasound performed during this period, when urinary dilations become more pronounced, may enable timely implementation of conservative approaches such as close monitoring, postural advice, fluid balance management, and early assessment for infection in pregnant women with severe dilation [4].

The current approach, which focuses primarily on symptomatic cases, is a reactive strategy that may delay diagnosis. However, asymptomatic obstructive uropathies may be associated with serious outcomes, such as pyelonephritis and related complications, including preterm birth, low birth weight, and hospital admission [5]. Given the clinical and economic burden of these complications, renal ultrasound screening warrants consideration not only as a diagnostic but also as a preventive approach.

In conclusion, routine maternal renal ultrasound performed between 24 and 28 weeks of gestation may be a rational strategy for early detection of asymptomatic but clinically significant renal pathologies. Large-scale prospective studies are needed to integrate this recommendation into routine antenatal care.

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