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Letter to the Editor

Should routine iodine supplementation replace iodine testing in pregnant women in Turkey? A family medicine perspective

Emre Vuraloğlu[1]

[1]Department of Family Medicine, Kırşehir Training and Research Hospital, Kırşehir, Türkiye

Iodine is an essential element for thyroid hormone synthesis and plays a critical role in maintaining the health of both the mother and the fetus during pregnancy.[1,2] Therefore, monitoring iodine status in populations and ensuring adequate iodine intake during pregnancy are of great importance for public health.[2] The 2007 guideline published by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and the Iodine Global Network (IGN) recommends measuring urinary iodine concentration (UIC) to assess the iodine status of populations.[3] According to this guideline, a median urinary iodine concentration below 150 µg/L in pregnant women indicates insufficient iodine intake.[3]

Studies conducted among pregnant women in Türkiye indicate that inadequate iodine intake remains a significant public health concern. In Istanbul, a study involving 3,543 pregnant women found a median UIC of 77 µg/L, with iodine deficiency identified in 90% of participants.[4] In a study conducted in Trabzon involving 864 pregnant women, despite a 90.7% rate of iodized salt consumption, the median UIC was found to be 102 µg/L, and iodine deficiency was identified in 77.9% of the participants.[5] In a retrospective analysis conducted in Ankara, subclinical hypothyroidism was detected in 12.8% of pregnant women, despite their self-reported use of iodized salt.[6] Based on this finding, it has been emphasized that the use of iodized salt alone during pregnancy may not be sufficient to meet the increased iodine requirement, and that iodine supplementation is necessary.[6]

These data indicate that iodine deficiency remains prevalent among pregnant women in Türkiye. Although Türkiye is generally considered an iodine-sufficient country, our country still experiences moderate-to-severe iodine deficiency, particularly among pregnant women. The 2025 Thyroid Disorders Diagnosis and Treatment Guideline of the Turkish Endocrinology and Metabolism Society (TEMD) also reports that iodine deficiency is still common among pregnant women and explicitly recommends providing additional iodine supplementation during pregnancy.[7] Therefore, because individual iodine testing is unreliable and requires multiple samples collected on different days, prophylactic iodine supplementation should be provided to all pregnant women without requiring individual testing as a prerequisite.[7] According to the WHO, UNICEF, and IGN guidelines, the average daily iodine requirement is 250 µg during pregnancy

✉ Emre Vuraloğlu ▪ emrevuraloglu@gmail.com

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and lactation.[3] Considering that the consumption of iodized salt in Türkiye provides an average of 100–150 µg of iodine per day, this amount is generally insufficient. According to the TEMD guideline, it is recommended that 100-300 µg of iodine be taken daily as a supplement.[7]

In conclusion, current evidence indicates that iodine deficiency among pregnant women in Türkiye persists, and that routine iodine supplementation, rather than individual testing, represents a more effective preventive strategy. As the first point of contact in the healthcare system and often the physician whom pregnant women consult first, family physicians play a pivotal role in ensuring the regular implementation of iodine supplementation during antenatal follow-ups. By doing so, they can help prevent potential complications associated with iodine deficiency and contribute to improving maternal and fetal health outcomes.

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Conflict of interest

The authors declare that there is no conflict of interest to disclose.

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