

LETTER to the EDITOR

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The Hidden Effects of Iodine Deficiency on Cancer Patients: An Urgent Appeal for Awareness Campaigns

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Dear Editor

I am reaching out to highlight the critical findings from the recent study, “Urinary Iodine Concentrations in Cancer Patients” by Saeed Kargar, which brings to light an alarming public health issue: iodine deficiency among cancer patients. The study reveals a serious public health concern regarding iodine deficiency among cancer patients, with a median urinary iodine concentration (UIC) of 17.4 µg/L, significantly below the World Health Organization (WHO) recommendation of 100–199 µg/L for a healthy population [1].

According to the WHO/UNICEF/ICCIDD guidelines, the median UIC of a population is compared to reference criteria to assess iodine status. For non-pregnant women, a median UIC of less than 100 µg/L suggests insufficient iodine intake. In this study, an overwhelming 88.1% of participants fall into the severe deficiency category, with only 2.4% showing mild deficiency (UIC of 50–99 µg/L) [2]. The lack of significant differences in UIC by gender or age indicates that this deficiency is a pervasive issue, affecting all demographics and emphasizing the urgent need for public health initiatives aimed at promoting universal iodine intake. Given the crucial role of iodine in thyroid function and overall health—particularly for vulnerable cancer patients—these findings call for immediate action. The median UIC for females (17.1 ± 1.2 µg/L) and males (16.9 ± 1.4 µg/L) reinforces the need for patient education on dietary sources of iodine and potential supplementation. It is essential that we address this deficiency across all age groups to improve health outcomes and enhance the management of cancer patients.

The median UIC for females (17.1 ± 1.2 µg/L) and males (16.9 ± 1.4 µg/L) underscores the necessity for educating patients about dietary iodine sources and potential supplementation. Addressing this deficiency across all age groups is vital for improving health outcomes for cancer patients and enhancing their condition management.

Drawing from the findings of severe iodine deficiency in Iranian cancer patients, I propose several key recommendations for oncologists:

1. Routine Iodine Status Screening

Oncologists should implement regular screenings for iodine status in cancer patients, particularly in regions recognized for iodine deficiency. Early identification of at-risk patients could lead to effective nutritional interventions.

2. Nutritional Counseling

Oncologists can play a vital role in providing nutritional guidance emphasizing the necessity of adequate iodine intake. Collaborating with dietitians to develop personalized dietary plans rich in iodine or featuring iodine-fortified products is crucial.

3. Research on Iodine Supplementation

Investigating the impact of iodine supplementation on cancer treatment outcomes can provide invaluable insights. Oncologists should consider supporting clinical trials to explore whether supplementation improves the effectiveness of cancer therapies or enhances patients' quality of life.

4. Multidisciplinary Approach

A collaborative strategy involving endocrinologists, nutritionists, and oncologists could effectively tackle iodine deficiency. This team would work together to monitor iodine levels, educate patients, and promote dietary changes.

5. Public Health Advocacy

Oncologists should advocate for public health initiatives that raise awareness about iodine deficiency and support fortification programs, especially in regions where deficiency is common. Such efforts could contribute to reducing the incidence of iodine deficiency-related cancers in the future.

6. Patient Education

Informing patients about the potential correlation between iodine deficiency and cancer risk empowers them to make informed dietary decisions. Oncologists can provide resources detailing iodine-rich foods and the importance of maintaining adequate iodine levels.

7. Monitoring Iodine Levels During Treatment

It is essential to monitor iodine levels in patients undergoing cancer treatment, as various therapies can influence iodine metabolism. Adjusting iodine intake accordingly may help alleviate side effects or enhance treatment effectiveness.

In conclusion, Saeed Kargar's study highlights a crucial and often neglected aspect of cancer care: the widespread iodine deficiency among cancer patients. With an alarming 88.1% of subjects identified as severely deficient, it is imperative that healthcare professionals, particularly oncologists, recognize the ramifications of

inadequate iodine levels for patient health and treatment outcomes. By adopting routine iodine screenings, offering nutritional counseling, advocating for public health initiatives, and fostering a multidisciplinary collaboration, oncologists can significantly address this vital concern. Enhancing iodine status among cancer patients not only supports thyroid function but also improves overall well-being and treatment outcomes, thereby contributing to a comprehensive approach to cancer care that prioritizes nutritional health.

Author Contribution Statement

Ahmad Shirinzadeh-Dastgiri: Developed the study concept, conducted the literature review, and drafted the manuscript, highlighting the clinical implications of iodine deficiency in cancer care; Hossein Neamatzadeh: Analyzed data on iodine deficiency's effects on cancer patients and contributed to the discussion on public health initiatives and multidisciplinary solutions; Amirhossein Rahmani: Corresponding author managing the manuscript's structure and flow, coordinating contributions, ensuring clarity, and overseeing submission while stressing the importance of public awareness and patient education on iodine nutrition.

Conflict of interest

The authors declare no conflicts of interest concerning this article's publication.

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