

Special Supplement on THYROID

Editorial



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Thyroid vigil

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Thyroid disorders have become common in everyday practice¹. Enhanced understanding of the importance of thyroid dysfunction, better facilities for screening and diagnosis, and increased life expectancy have contributed to the increase in prevalence of these disease. Major changes have also occurred in the etiopathogenesis, clinical presentation and diagnosis of thyroid disease. The physician must be aware of these developments, and current guidelines, in order to provide best possible guidance and care to his or her patients².

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Diagnosis

While goiter, iodine deficiency and hypothyroidism have been known to medical science for centuries³, these diagnoses were based on clinical presentation, i.e., symptoms and signs. In fact, endocrinology, till about half a century ago, was hindered by lack of good diagnostic tools. The development of radioimmunoassay changed the perception of endocrinology and thyroidology, from an obscure subject to a mainstream science⁴.

Improvements in endocrine assay technique, coupled with easy availability and affordability have facilitated easier screening and diagnosis. This has allowed earlier diagnosis, and timely management of illness. This has also

led to an appreciation of the significance of biochemically diagnosed disorders such as subclinical hypothyroidism.

Advances in diagnostic and imaging fields, such as fine needle aspiration cytology and thyroid ultrasonography⁵ have also contributed to improvements in thyroid care. These have allowed timely identification and addressal of potentially life threatening diseases such as malignancy.

Etiopathogenesis and Clinical Presentation:

Thyroid disease was earlier thought to be synonymous with iodine deficiency. Seminal research by Sooch and Ramalingaswami in the Kangra valley helped prove that iodine supplementation could prevent goiter⁶. This led to the creation of the highly successful National Goiter Control Programme in 1962.

In modern India, it is rare to see the huge goiters and severe cretinism that were once ubiquitous in the country. Instead, autoimmune thyroid disease (AITD) has become endemic, perhaps as a consequence of universal iodization⁷. Goitrous hypothyroidism has been replaced by autoimmune Hashimoto's thyroiditis and this requires a higher index of clinical suspicion for diagnosis.

Availability of modern imaging techniques has also meant that thyroid nodules and incidentalomas are being diagnosed and evaluated more frequently. An unwanted fall out of iodization is that higher doses of anti-thyroid drugs are now needed to manage Grave's disease.

The Task Ahead :

While thyroidology has developed over the past few decades, much more still needs to be done^{8,9}. As a country, and as a profession, we need to practice eternal 'thyroid vigil'. A national screening programme for congenital hypothyroidism must be instituted, to detect this important cause of preventable mental retardation in time.

Universal screening of antenatal women must also be practiced, to diagnose and manage thyroid dysfunction. This will contribute to better foeto-maternal outcomes and offspring health. Pre-pregnancy iodine status is a crucial factor in interpreting the effects of iodine supplementation on thyroid function and offspring cognition. There is still a question mark over whether a supplement of iodine in early pregnancy in regions with mild deficiency in both women of childbearing age and during pregnancy would benefit neurodevelopment in offspring. Further randomised controlled trials are therefore still required regarding iodine supplementation and pregnancy and neonatal outcomes.

Another focus area is the elderly. Hypothyroidism is a

contributory factor to the majority of geriatric syndromes. Regular clinical assessment, and biochemical investigation when required, will help improve geriatric health as well.

Quaternary Prevention :

At the same time, the practicing physician must be aware of the pitfalls of over diagnosis and overtreatment of "thyroid dysfunction"¹⁰. Euthyroid sick syndrome, subclinical hypothyroidism and subclinical thyrotoxicosis do not always require therapy. The astute physician should be able to recognize clinical situations where the best treatment is no treatment.

The Way Forward :

The Journal of Indian Medical Association supplement on Thyroid is an important step in enhancing national awareness about thyroid health. Through this publication, we call upon all medical practitioners and students to practice Thyroid Vigil, and to ensure optimal thyroid health for our country women and men.

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