

Commentary: Thyroid eye disease in India: A wake-up call?

It is said that 'it takes a village to raise a child'. Similarly, managing a patient of thyroid eye disease (TED) needs a team effort.

Thyroid-associated ophthalmopathy, unfortunately, does not get the attention it deserves among ophthalmologists. This complex, autoimmune disease has the potential to cause visual loss, which can range from mild to severe functional impairment in terms of diplopia and strabismus, cosmetic disfigurement, and the resulting emotional turmoil. In addition to apathy, TED also suffers from a lack of awareness and standardized management protocols. It is indeed disheartening to note that even amongst the responders of this study, majority of whom are fellowship-trained (82.4%) bonafide members of the Oculoplasty Association of India, there is a distinct lack of consistency in managing these patients.^[1]

A correlation between the poor quality of life (QOL) and TED has been well documented. The Graves' Ophthalmopathy Quality of Life Questionnaire (GO-QOL) is a validated, disease-specific list of 8 questions relating to visual function and 8 related to appearances. It is a sensitive tool to identify patients who require psychological support.^[2] But, only 3% of the responders in this study had a psychiatrist on their team while managing these patients.^[1] This is hardly surprising as it reflects an overall indifference to mental health in the Indian subcontinent. Even the authors conducting this study did not find it pertinent to include GO-QOL assessment in their list of questions.

TED is often associated with thyroid dysfunction, though several subjects may remain euthyroid throughout the disease. Elevated thyroid stimulating immunoglobulin (TSI) levels greater than 400 at the time of presentation may predict the risk for development of orbitopathy, hence should be included in the investigations.^[3]

Many practitioners still prefer treating TED patients with oral, instead of intravenous methylprednisolone (IVMP), despite strong evidence to the contrary.^[4]

Though computerized tomogram (CT) remains the imaging of choice for most practitioners, increased signal intensity in T2 weighted magnetic resonance imaging (MRI) images indicate active disease and should be considered as a positive predictor for the requirement of anti-inflammatory treatment in the form of corticosteroids and/or radiation.^[5] CT scans, though valuable in surgical planning, fail to differentiate the stage of the disease.

Orbital radiation is a safe and effective therapy for active TED, but it lacks acceptance, with only 26% of the responders including it in their armamentarium. Hopefully, this situation will change after the results of the ongoing 'Combined Radiation and Intravenous Steroids in Early Progressive Thyroid Eye Disease' (CRISEPTED) study are published. CRISEPTED study compares the effect of combined radiation and IVMP with IVMP alone in early progressive TED. This will potentially determine the role of radiation in reducing the severity of motility disorders or preventing the onset of dysthyroid optic neuropathy.^[6]

TED patients are rarely treated when signs of optic nerve crowding are present, leading to irreversible visual loss when the crowding progresses to compression. It is imperative to have the knowledge and expertise to treat sight-threatening TED. Endoscopy-guided medial wall decompressions in DON or navigation-guided orbital decompressions are safe and predictable. The recent trend of balanced and deep lateral wall decompressions rarely leads to any serious complications in trained hands.

Though dysthyroid optic neuropathy and exposure keratopathy are the major causes of vision loss in patients with TED, there is a definite correlation of open-angle glaucoma with TED in Caucasian patients.^[7] There is a paucity of data on this association in the context of the Indian subcontinent. Future researchers must delve into this important area.

Recent developments in the understanding of the molecular basis of TED has led to multicenter, double-masked, placebo-controlled clinical trials with teprotumumab, a human inhibitory monoclonal antibody against the insulin-like growth factor I receptor (IGF-IR). It has shown remarkable effectiveness in moderate to severe, active TED and has been approved by the United States Food and Drug Administration (US- FDA),

as of January 2020 for first-line therapy for this disfiguring and potentially blinding condition.^[8]

Till teprotumumab becomes available and economically feasible for use in the Indian subcontinent, we must educate ourselves and manage these patients with the resources available to us.

Indubitably, the disease is varying in presenting features and unpredictable in its course, needing a multidisciplinary approach to the treatment. Endocrinologists and general ophthalmologists, who are the first point of contact for these patients, rarely refer them in a timely manner to the specialists. We need awareness programs, dedicated thyroid clinics, and collaborative efforts amongst the endocrinologists, psychologists, immunotherapists, strabismologists, orbital surgeons, neuro-ophthalmologists, glaucoma specialists, and radiation oncologists.

To conclude, most patients with Graves' orbitopathy have mild disease that requires nil or minimal intervention. For the minority of patients with moderate or severe disease, multiple medical and surgical interventions may be required at the different stages of the disease. It is crucial that these patients are monitored closely and management is carried out in the right sequence for an optimal outcome. Medical treatment should be used as early as possible and only during the active phase of the disease. This study has highlighted the need for multicentric, epidemiological studies on TED in the Indian subcontinent.^[1]

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