

Rising Trend in the Frequency of Secondary and Tertiary Hyperparathyroidism: Observations from the Indian PHPT Registry

Primary hyperparathyroidism (PHPT) is the third common endocrine disorder characterised by hypercalcaemia with inappropriately elevated parathyroid hormone (PTH) levels. PHPT is primarily a sporadic disease (85–90%); however, hereditary/familial cases with known genetic causes account for 10–15% of the cases. Sporadic PHPT is mainly caused by parathyroid adenoma (PA) (80–85%), followed by parathyroid hyperplasia (15–20%) and rarely by parathyroid carcinoma (PC) (<1%).

Secondary hyperparathyroidism (SHPT) usually results from vitamin D deficiency, chronic kidney disease (CKD), and malabsorption states. However, tertiary hyperparathyroidism (THPT) is the end result of long-standing secondary hyperparathyroidism associated with CKD on renal replacement therapy (RRT). Patients with severe SHPT or THPT due to CKD often require surgical intervention in the form of subtotal parathyroidectomy.

The Department of Endocrinology, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India, maintains an online database named The Indian PHPT Registry (www.indianphptregistry.com) of patients undergoing parathyroid surgery for PHPT, SHPT, and THPT.^[1,2] It is noteworthy that the majority of the cases enrolled in the Indian registry are PHPT; however, of late, there has been a noticeable rise in the frequency of SHPT and THPT cases.

We retrieved the data from the registry of all patients who had undergone parathyroid surgery at our institute from 1 January 2013 to 1 January 2023. A total of 404 adults had been enlisted in this decade with 171 patients having undergone surgery between 2013 and 2017, while the rest 233 are operated between 2018 and 2023. The frequency of PHPT, SHPT, and THPT was 96.5%, 0.7%, and 1.7%, respectively, in the first half of the decade (2013–2017). However, over the next 5 years (2018–2023), there was an appreciable rise in the frequency of SHPT and THPT cases to 4.3% and 10.3%, respectively.

This apparent rise in the frequency of SHPT and THPT could be the result of increased awareness among physicians, nephrologists, and endocrinologists about these entities along with an increased lifespan of patients with CKD, courtesy more efficient forms of RRTs. Accordingly, more CKD patients are being diagnosed with SHPT and THPT. Besides, as renal transplantation has become more widespread and affordable, more CKD patients are undergoing renal transplantation. Correction of severe SHPT and THPT is of paramount importance prior to renal transplantation, which could also explain the apparent rise in the frequency encountered over the past half a decade.^[3]

Acknowledgement

None.

Author contribution

SG is the primary author. RP edited the manuscript. SKB is the corresponding author.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Submitted: 17-Sep-2024

Revised: 02-Nov-2024

Accepted: 11-Nov-2024

Published: 30-Dec-2024

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DOI:

10.4103/ijem.ijem_376_24

How to cite this article: Garg S, Pal R, Bhadada SK. Rising trend in the frequency of secondary and tertiary hyperparathyroidism: Observations from the Indian PHPT registry. *Indian J Endocr Metab* 2024;28:659.

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