

# The Necessity and Reliability of Intraoperative Parathyroid Hormone (PTH) Testing in Patients with Mild Hyperparathyroidism and PTH Levels in the Normal Range

Sudhi Agarwal · Amit Agarwal · Gyan Chand

Published online: 23 September 2011  
© Société Internationale de Chirurgie 2011

To the Editor,

We read with interest the article by Alhefdhi et al. [1] and discussed it in our journal club. We congratulate the authors for raising the issue of using intraoperative parathyroid hormone (PTH) monitoring in mild primary hyperparathyroidism (PHPT). Because of the mild biochemical and clinical indicators and the indolent natural course of the disease, surgical intervention and its benefits remain controversial [2]. It is particularly difficult to apply intraoperative adjuncts to decide the surgical cure of the patient when the serum PTH level is within the normal range. Very few studies have focused on this issue [3], and we believe the utility of intraoperative PTH (IOPTH) monitoring in mild PHPT needs to be studied, as the incidence of mild PHPT, common in Western countries, is also becoming prevalent in developing countries.

To improve our understanding of the authors' approach, we would like clarification on several points:

First, did the authors perform preoperative localization? If so, how many of their patients were diagnosed preoperatively with multigland disease?

The authors mention that they investigated the patients undergoing "standard targeted parathyroidectomy"; we are not clear what that means. Also, how did they approach patients with multiglandular disease?

It would be particularly informative to know the clinicopathological and surgical details of the five patients who

did not have IOPTH decline >50% until the end of the procedure. Routine cases can be managed by any means, but the characteristics of this problem group need to be addressed for improved outcome. When it became apparent that the IOPTH level had not decreased, what was done?

The reported cure rate in the present study was 100%; however, the mean preoperative serum calcium level was  $10.8 \pm 0.1$  mg/dl, and there might have been some patients with normal serum calcium with normal serum PTH (as per the inclusion criteria) Given this possibility, how did the authors decide that operative cure had been effected, especially in those five patients with no decline in the PTH level until the end of the operation?

## References

1. Alhefdhi A, Pinchot SN, Davis R et al (2011) The necessity and reliability of intraoperative parathyroid hormone (PTH) testing in patients with mild hyperparathyroidism and PTH levels in the normal range. *World J Surg* 35:2006–2009
2. Silverberg JS, Bilezikian JP, Bone HG et al (1999) Therapeutic controversies in primary hyperparathyroidism. *J Clin Endocrinol Metab* 84:2275–2278
3. Carneiro-Pla DM, Irvin GL 3rd, Chen H (2007) Consequences of parathyroidectomy in patients with "mild" sporadic primary hyperparathyroidism. *Surgery* 142:795–799

S. Agarwal (✉) · A. Agarwal · G. Chand  
Department of Endocrine Surgery, Sanjay Gandhi Postgraduate  
Institute of Medical Sciences, Rae Bareilly Road,  
Lucknow 226014, India  
e-mail: sudhi@sgpgi.ac.in