The vast majority of thyroidectomies are performed in an everyday surgery setting. Therefore, predicting and/or treating postoperative hypocalcemia constitutes a major issue, because its onset is frequently placed after the discharge of the patient.

Approaches to predicting hypocalcemia based on calcium and/or parathormone (PTH) serum values at different times after surgery as well as various protocols of calcium and vitamin D supplementation have been proven to be useful. Prediction, early detection, and treatment of this complication lead to adopting the correct strategy of supplementation and diminish morbidity dramatically.

There has been great interest to identify perioperative factors that could predict postoperative hypocalcemia. Serum PTH measurements (intra- or postoperative) have been useful in the identification of patients at risk for hypocalcemia. In addition to its clinical usefulness in the identification of patients who should be treated, a serum PTH assay may also be cost-effective by reducing the postoperative length of hospital stay and the need for expensive postoperative serum calcium monitoring. The accuracy of a low serum PTH level to predict postoperative hypocalcemia was effective. The sensitivity of the intraoperative serum PTH level to predict postoperative hypocalcemia is 70 to 80%, whereas low serum PTH levels at later hours after operation were more accurate predictors. On the contrary, calcium-related indices display lower sensitivity in predicting symptomatic hypocalcemia; however, their adequate specificity and negative predictive value together with their low cost place them in the arsenal of clinical valuable indices. The various prognostic indices, involving PTH and calcium, regarding postoperative symptomatic hypocalcemia have high accuracy rates, high negative prognostic value rates, but low positive prognostic value rates. Of course, their combination makes the prediction of postoperative hypocalcemia more possible. However, a possible weighted combination of those indices in a scale may provide an even better prognostic index.

In this article, the authors introduce a protocol of calcium and calcitriol administration regarding PTH levels measured immediately after surgery which resulted in decrease of postprocedure hypocalcemia, length of hospital stay, and rate of readmissions. Despite the retrospective character of the study, which may not allow us to yield clear results about the predictive value of postthyroidectomy PTH levels, it is more than necessary to conclude in a protocol like that used in the study, because it could be very useful for avoiding overtreatment and focusing only on patients who have clear indication for calcium substitution.

REFERENCES