

# LEVEL OF THYROID HORMONE AFTER THYROID SURGERY

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## ABSTRACT

*If you are going to be discharged, you must choose a patient with a lower risk of hypocalcaemia. The first day after bilateral thyroidectomy. This study investigated the value of the forecast Intraoperative parathyroid hormone (PTH). All or almost all of the 38 patients underwent thyroidectomy. Patients with or without biochemical substances Comparison of intraoperative PTH levels with previous symptomatic hypocalcaemia Recommended risk factors. Intraoperative PTH predicts the accuracy of postoperative high-risk patients hypocalcaemia was compared with a calcium concentration of less than 2.00 mmol / L (8.0 mg / dL). The first day after surgery. PTH level after removal of the second leaf, age and number of parathyroid glands Intraoperative lower serum calcium concentration The lowest point is on the first or second day after surgery. The PTH level after cutting the second leaf is Patients with biochemical ( $P < .001$ ) and symptomatic hypocalcaemia ( $P < .01$ ) have a reduced condition Compared with those who don't. Can determine intraoperative PTH levels in 3 patients Intravenous calcium is required for the first 24 hours after surgery. Intraoperative PTH level Below the reference range and measured 1 day after surgery, the calcium concentration is below 2.00 mmol / L Both predicted biochemical hypocalcaemia with similar sensitivity (92% vs 92%) and specificity (74% vs. 83%). Intraoperative PTH is slightly higher than serum calcium concentration Symptomatic hypocalcaemia can be predicted by more than 2.00 mmol / L on the first day after surgery. The sensitivity is Specificity was 72% and 55%, respectively.*

## 1- INTRODUCTION

Thyroid surgery usually has a low Incidence rate 1-3, has been used as a brief Select the stop program in the series. 4-6 off monitoring Postoperative calcium concentration is usually Recommended after sub sternal surgery Goiter, recurrent goiter, Graves' disease, etc. Thyroid surgery includes Lymph node dissection <sup>1-3,7,8</sup> However, in the literature, Very little about the best guidance Monitoring methods for most patients Receive thyroid surgery. Common methods for assessing calcium concentration Until every day that reaches an upward trend <sup>9</sup> Recently challenged.

Instead, someone suggested Serum calcium concentration should In some cases 4 or in the initial stages of measurement Only 24 hours. 10-12 but The determination of serum total calcium is very cheap.

Because the operation is not accurate Hem dilution <sup>[13-16]</sup>, poor prediction of symptoms Hypocalcaemia. <sup>9,10,15,16</sup> discharged patients On the first day after bilateral thyroid surgery, A method for detecting treatment needs Hypocalcaemia with good reliability will be Very important.

Unable to detect older research report Parathyroid hormone (PTH) levels after thyroidectomy Patients with tetanus <sup>17</sup> and low PTH The level of patients with biochemical hypocalcaemia<sup>7,15</sup>. The purpose of this study is to investigate Is intraoperative serum PTH level acceptable Predict biochemical and symptomatic hypocalcaemia. In addition, the study also evaluated Correlation between previously proposed risk factors and decreased blood calcium levels Early postoperative period.

## 2- METHODOLOGY

**Patients.** A total of 38 patients, including 6 male and 32 female, with an average age of 35 Including the year (15 to 80 years) Research. The surgical indication is Graves' disease 26 cases of goiter have compression symptoms In 10 patients, there is also Plummer's disease and Report of Suspicious Cases of Papillary Carcinoma of the Thyroid Each. All but 1 are normal Preoperative thyroid. Twenty three Patients receive ant thyroid therapy drugs; 3 of these patients also accepted Propranolol. Propranolol 2 alone Inhibition of adverse reactions of the thyroid Drugs.

**Surgical treatment.** 18 patients combined Thyroidectomy and almost all contralateral resection. 1 of the remaining 20 patients Perform a total thyroidectomy. In each patient Recurrent laryngeal nerve, Upper and lower branches of the thyroid The artery divides near the thyroid sac. Parathyroid gland Cut from the thyroid gland and made an effort Identify all parathyroid glands. but if Nothing found in the lower part of the parathyroid gland Lower thyroid gland, presumably they are located In the thymus or thymus ligament. This The area has not yet been dissected. Routine biopsy The parathyroid glands have not yet been manufactured.

**Study plan.** The study aims to evaluate Precision of intraoperative PTH levels Predicting postoperative biochemical risk Compared to symptomatic hypocalcaemia Common biochemical standard Hypocalcaemia, serum calcium concentration Less than 2.00 mmol / L the next morning Surgery In addition, Postoperative hypocalcaemia and previous recommendations Risk factors, including intraoperative THA The level has been analyzed. ethics committee of Medicine approved After the study, all patients gave their informed consent. Inform patients about symptoms Calcium requires calcium Carbonate (Kalcipos, calcium 500 mg, Recip AB, in case of muscular allergy It happened. They were also asked to complete the questionnaire About frequency and severity Symptoms of hypocalcaemia and calcium intake Movie. The first part of the questionnaire is The patient returns after leaving the hospital Ward and second part of the follow-up 4 A few weeks after the

operation. Calcium glucometer intravenously 10 ml (Calcium Santos, 9 mg Ca / mL) for positive patients Logo Chvostek and / or Trousseau. Evaluate serum calcium and PTH values A day before the operation. Serum level during surgery Peripheral venous parathyroid hormone Before and after the anus Cut the first leaf and the second leaf. Also measured serum calcium and PTH values First to third day after surgery Follow-up was done 4 weeks later. Patients with or without biochemical hypocalcaemia, Defined as 2 or more postoperative calcium Concentration less than 2.00 mmol / L, 15 About intraoperative PTH rates and Recommended for important factors of hypocalcaemia After an operation of the thyroid.

**Statistics:** The results are expressed in median (Scope) unless otherwise indicated. For comparison Repeat assessment After the operation, the Friedman test was used. The Next, consider using the Wilcoxon signature level test. Pour into the comparator group Test the precise use of Whitney University and Fisher Lecaschéant. Associated entity variable Morids Linnaeus Art Development Assessment Method variables are available for future operations Modification of univariate calcium concentration L'analyse (p <0,20) plus surcharge Analyze linear regression. Valencia medical history 0,05 is considered as means.

## 3- CONCLUSION

Data from this study confirmed the peak Hyperparathyroidism is the main cause Hypocalcaemia after bilateral thyroid surgery <sup>[14,15,17]</sup> PTH levels predict biochemistry and symptoms Postoperative hypocalcaemia is not obvious Different from the commonly used serum Calcium concentration less than 2.00 mmol / L Obtained in the morning after surgery. More Importantly, the planned intraoperative PTH rate All patients in need of intravenous calcium supplementation Due to severe symptomatic hypocalcaemia In the first 24 hours after surgery and during surgery Therefore, PTH levels may be more useful Compared to the measures of the next morning Concentration of serum calcium. We found the total serum calcium concentration Bilateral thyroid surgery is significantly reduced Surgical treatment.

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This phenomenon often occurs After debate, generally Hem dilution explanation<sup>13-16</sup> The impact of blood thinning on some researchers Instead of getting serum ion concentration Calcium, etc. have calculated the protein Adjust the serum calcium values. However, It does not matter which calcium assessment method to use. Already used, the correlation between them is very weak Biochemical and symptomatic hypocalcaemia Always report.<sup>9,10,15,16</sup> We found that the serum calcium concentration was Less than 2.00 mmol / L on the first postoperative day Biochemical hypocalcaemia The first 3 days after the surgery, but lasted only 9 days Symptomatic hypocalcaemia 17. In addition, 2 cases of severe hypocalcaemia in 3 cases First sudden attack After the operation, maybe not Predicted by previous gold standards.

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