Does size matter? – The correlation between parathyroid adenoma mass and intra-operative PTH values.

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ABSTRACT

TITLE
Does size matter? – The correlation between parathyroid adenoma mass and intra-operative PTH values.

OBJECTIVES
Examine the relationship between parathyroid adenoma mass and pre-excisional intra-operative parathyroid hormone (PTH) values.

METHODS
IRB approved retrospective review of all parathyroid adenoma resections performed from January 2006 to December 2006 at a major medical institution. Data collected include pre-excisional PTH levels and resected adenoma mass. Pearson coefficient correlation and p-value was measured.

RESULTS
71 patients underwent parathyroid resection. There were 16 men and 55 women with an average age of 56.5 +/- 14.2 years. The average mass of resected adenoma specimen was 1.04 +/- 1.55 gm and the average pre-excisional iPTH value was 196.41 +/- 189.00. The Pearson correlation coefficient equals 0.196 with p = 0.101, representing poor relationship between parathyroid adenoma mass and pre-excisional PTH levels.

CONCLUSION
Pre-excisional iPTH levels are not predictive of expected parathyroid adenoma mass.

INTRODUCTION

Objective
Examine the relationship between parathyroid adenoma mass and pre-excisional intra-operative parathyroid hormone (PTH) values.

Methods

Rapid intact parathyroid hormone (PTH) level represents valuable adjunct to preoperative imaging in treating patients with primary hyperparathyroidism.

A 50% decrease versus baseline PTH 10 min after resection of the suspected parathyroid adenoma reliably indicates cure.

Pre-operative PTH levels as a marker for adenoma size can theoretically assist in identifying the aberrant gland(s) during exploratory parathyroidectomy.

However, there is conflicting evidence of the correlative relationship between gland size and pre-operative PTH values.

Results

IRB approved retrospective review of all parathyroid adenoma resections performed from January 2006 to December 2006 at a major medical institution.

Data collected include pre-excisional PTH levels and resected adenoma mass. Pearson coefficient correlation and p-value were measured.

CONCLUSION
Pre-excisional Intra-operative PTH levels are not predictive of parathyroid adenoma mass.

REFERENCES


Figure 1. Pre-excisional intra-operative PTH as a function of adenoma mass.