Reviewer's report

Title: Relationship between parathyroid mass and parathyroid hormone level in hemodialysis patients with secondary hyperparathyroidism

Version: 2  Date: 5 January 2015

Reviewer: Bjorn Meijers

Reviewer's report:

The authors have tried to answer all of my questions and concerns. It should however be noted that their rebuttal is not really satisfying, as their main concern is to downplay most of the reviewer's suggestions. This study has the potential to be much more than it is now, a rather descriptive study of a well characterized prospectively followed cohort of patients undergoing parathyroidectomy. The authors should be motivated to dive deeper into the data and try to really answer the issues raised by the two reviewers.

Additional questions to be explored in this dataset may include whether and to which extent ultrasound characteristics are predictive of pathology findings, e.g. are there specific characteristics that predict nodular hyperplasia (number of enlarged glands, size, shape, PTH level, demographics)

Please add a flowchart describing the decision tree for parathyroidectomy, as the used indications are still somewhat vague.

The authors have included the results of a Q-Q plot as well as Shapiro-Wilk and Kolmogorov-Smirnov testing for PTH. All are indicative of a non-normal distribution. They either should use non-parametric test statistics (Spearman instead of Pearson, ...) or transform PTH. Usually, log-transformation will result in (a more) normal distribution.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests