Reviewer's report

Title: Transient hypercortisolism and symptomatic hyperthyroidism associated to primary hyperparathyroidism in an elderly patient: case report and literature review

Version: 2 Date: 24 September 2014

Reviewer: André P van Beek

Reviewer's report:

The authors present a case of various endocrine diseases which concomitantly occurred: severe primary hyperparathyroidism followed by hyperthyroidism and hypercortisolism.

It is a truly remarkable case of apparent separate endocrine disease which may be more related to each other than would been estimated in advance.

Major compulsory revisions:
1. The diagnosis of hypercortisolism is only pursued in case of hypercortisolistic stigmata. This is not properly described in the case report. (lines 71-73)
   This is a general rule because otherwise intermittent stress-related disorders are confused with Cushing syndrome. May be the authors would comment on this. I would not have considered measuring cortisol in this case, to avoid this pitfall.
2. Iodine induced hyperthyroidism is more frequent on patients with underlying thyroid disorders. Please provide a description of the thyroid gland at presentation. (size, nodules, pathological neck lymphoma)
3. The level of PTH is very as is the presenting calcium concentration. In the differential diagnosis parathyroid carcinoma must be considered. Can you comment on the histological examinations. Considering the amount of radiological and nuclear examinations, did you find brown tumors?

Minor Essential Revisions
1. The language needs some adjustments at several places.
2. The addition of ultrasonography and 131-I scan are of little added value. Please consider only a description in the tekst.
3. The paper is a rather bulky. Please consider shortening the discussion.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
'I declare that I have no competing interests'