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: 15 September 2014

Reviewer: Ian Holdaway

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This case report provides details of an elderly man presenting with marked hypercalcaemia and pulmonary emboli. The elevated calcium was found to be due to hyperparathyroidism and dehydration. Scans suggested a left lower parathyroid thyroid adenoma, but ultimate histology is stated to have shown hyperplasia. He underwent 3-gland parathyroidectomy, and had transient post-operative thyrotoxicosis due either to the Yod Basedow phenomenon or surgical trauma to the thyroid (these possibilities are not able to be distinguished from the data provided). The patient also had a period of hypercortisolism with elevated ACTH probably due to stress, although the authors also propose temporary parathyroid/calcium-driven hypercortisolism.

My feeling is that this is a case report of primary hyperparathyroidism, generally well managed (although with renal impairment I would have favored use of Pamidronate rather than Zoledronate in initial treatment). The thyroid and adrenal aspects, although interesting, are readily explained. The main point of general interest is the persistence of activation of the HPA axis beyond the immediate stress of the acute illness and surgery, but with his age and comorbidities, it is likely the prolonged hypercortisolism was related to ongoing illness and stress.

If the report is to be published there are a number of errors of spelling or expression that require revision and the discussion could readily be shortened.

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 I have no competing interests