Reviewer's report

Title: Effect of eplerenone on parathyroid hormone levels in patients with primary hyperparathyroidism: A randomized, double-blind, placebo-controlled trial

Version: 2 Date: 18 March 2012

Reviewer: laurent brunaud

Reviewer's report:

This project is a randomized trial evaluating mainly the role of aldosterone plasma levels on parathormone plasma levels in patients with primary HPT. This trial is consequently important since:

- aldosterone is an independent predictive marker of cardio-vascular morbi AND mortality in HPT1 patients and in general population as well.
- Inter-relations between PTH and aldosterone metabolisms are currently not well known. Clinicians have observed that PTH could trigger increased aldosterone levels and conversely. However underlying precise mechanisms are currently unknown.

Major Compulsory Revisions

1- Since using eplerenone is not a consensus or even a therapeutic option in 2012 in HPT1 patients, I would ask authors to provide a fair balance of the risks of using that drug in HPT1 patients (side effects, risks...).

2- How is it possible to be sure that eplerenone does not impact directly PTH levels (without implying mechanisms related to aldosterone ) ?

Minor Essential Revisions

3- Spelling errors

Level of interest: An article of outstanding merit and interest in its field

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests