Reviewer's report

Title: A case with transient refractive change after removal of pituitary tumor

Version: 3 Date: 28 February 2013

Reviewer: rafael iribarren

Reviewer's report:

Discretionary Revisions

The report has been greatly improved. I realize the effort made.

Yet, I would concentrate the discussion in the fact that the posterior pole of the lens did not recede with swelling, explaining thus that the refractive change was not due to changes in lens position. I think that one cannot say that the study "suggests that there was no correlation between the increase in lens thickness and the ciliary process in this case". I would simply say that the refractive change was not due to changes in lens position. Only a posteriorly positioned lens would produce an hyperopic shift, and that was not the case.

I would also point to the fact that the lens power change was responsible for the refractive change and would not give any plausible explanation. Now again it is very difficult to explain how the swelling produced an hyperopic shift. An homogeneous lens that becomes thicker, all the rest the same, would lose power. But the crystalline lens, which has a gradient, can change according to what happens with the gradient as the lens thickens with swelling. And as a lens thickens with swelling its curvatures may change, perhaps becoming flatter. Nobody knows. As you don’t have measurements of lens curvatures and cannot calculate the lens index, and even it is impossible to know what happens to the gradient in vivo, except by complex studies of high resolution of magnetic resonance images of the lens, I would center the discussion on the fact that the lens has lost power with swelling, and that that explains the myopic shift, with no further explanation.

In the last paragraph, were it says, “In this case, hyperopia was caused….” I would say, “In this case, the hyperopic shift was caused …”.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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