Reviewer's report

Title: Prevalence of hypopituitarism after intracranial operations not directly associated to the hypophyseal gland

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Reviewer: Veit Rohde

Reviewer's report:

The authors performed a prospective study investigating pituitary function in 51 patients after surgery for a variety of non-sellar pathologies; the hormone testing was performed 5 to 168 months after the operation. Some patients additionally underwent radiotherapy and chemotherapy. The authors detected hypopituitarism in two-thirds of the patients and concluded that hypopituitarism occurs frequently after brain surgery.

Two similar studies with the same results already had been published (Schneider 2006 [referenced by the authors] and De Marinis 2006 [not referenced]). Despite the prospective design, the authors failed to eliminate the substantial flaws of the preceding studies. These flaws are 1- lacking preoperative data, 2- no defined time point of testing, 3- inclusion of patient who have undergone radiotherapy which might have the sequela of hypopituitarism. As a consequence the conclusion that brain surgery is the culprit of hypopituitarism is not sufficiently substantiated.

Furthermore, there exist one prospective, again not referenced trial in 54 patients in which preoperative testing and testing 1 and 7 days after surgery was performed (Wachter 2011). This study design eliminated many of the flaws of the previous two and of this study and indicated that almost 50 % of hypopituitarism already is present before surgery.

Level of interest: An article of limited interest

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