Reviewer's report

Title: Vertical gaze palsy due to unilateral thalamic infarction

Version: 1 Date: 26 April 2011

Reviewer: Alex Foerster

Which of the following best describes what type of case report this is?: Unexpected or unusual presentations of a disease

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: No

Is the anonymity of the patient protected?: Yes

Comments to authors:

This interesting case report describes a patient with acute unilateral paramedian thalamic infarction and vertical gaze palsy.

I have a few suggestions for further development of this manuscript:

1. Abstract
   “This suggests an important role...” As the authors point out that vertical gaze palsy is a rarely observed clinical sign in unilateral thalamic infarction without midbrain involvement, I would prefer “a possible role” instead of “an important role”.

   “Clinico-pathological studies are needed to further define...” Although this is statement is principally right, the trend goes towards MRI studies since
pathoanatomical studies became less important in the last years.

2. Introduction
The cited studies are pathoanatomical (Bogousslavsky, Castaigne) or CT studies (Genitilini). The authors might consider to add the study of Weidauer et al, Assessment of paramedian thalamic infarcts: MR imaging, clinical features and prognosis. Eur Radiol (2004) 14: 1615-1626.

3. Case report
Was a neuropsychological assessment performed? Please comment.

4. Discussion
... the basilar communicating artery ... Although this term refers to the original name “artère basilaire communicante” used by Percheron in 1976, I think the term P1-segment of the posterior cerebral artery is more frequently in use.

A very small lesion could escape detection by magnetic resonance imaging ... I would delete this sentence.

5. Figure
The authors should add the DWI slices above and below the infarction. Furthermore they should add a T2-weighted image and a T2-weighted FLAIR image of the infarction. Otherwise, it is very difficult to differentiate which thalamic nuclei are affected. Is it the medial dorsal nucleus?

Quality of written English: Acceptable

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