Author's response to reviews

Title: Thalamic haemorrhage vs. internal capsule-basal ganglia haemorrhage: clinical profile and predictors of in-hospital mortality

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Author's response to reviews: see over
Dear Dr. Lê:

We have uploaded the revised version of this manuscript in which changes have been made in accordance to comments made by the three reviewers. Our point-by-point responses to these concerns are also here provided.

Please note the following:

1. A more extensive Background is added in the Abstract (page 2): “There is a paucity of clinical studies focused specifically on intracerebral haemorrhages of subcortical topography, a subject matter of interest to clinicians involved in stroke management. This single centre, retrospective study was conducted with the following objectives: a) to describe the aetiological, clinical and prognostic characteristics of patients with thalamic haemorrhage as compared with that of patients with internal capsule-basal ganglia haemorrhage, and b) to identify predictors of in-hospital mortality in patients with thalamic haemorrhage.”

2. We have modified the title as suggested by reviewer #1.

3. The revised manuscript conforms the journal style.

4. All changes introduced are highlighted with the pen function of Word.

We appreciate very much your attention to this paper.

Yours sincerely,

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AUTHORS’ COMMENTS TO SUGGESTIONS OF DR. ANDRZEJ SZCZUDLIK

Abnormal involuntary movements were unusual and present only in 2 patients. Significant altered memory function was present in 1 patient at hospital discharge. This information is added in the Results section.

In all patients with thalamic haemorrhage, the size of the haematoma was < 30 mm. In the Methods section we have added: “The volume of haematomas was measured. Haematomas were divided into small and large using a diameter of 30 mm.” In addition, it is clearly stated that the study population excluded “multiple topographic involvement (when more than one of the aforementioned topographies was affected by the haemorrhage and the size of the haematoma was > 30 mm).”

In the Background of the Abstract it is included the comparison with internal capsule-basal ganglia haemorrhage (page 2): This single centre, retrospective study was conducted with the following objectives: a) to describe the aetiological, clinical and prognostic characteristics of patients with thalamic haemorrhage as compared with that of patients with internal capsule-basal ganglia haemorrhage, and b) to identify predictors of in-hospital mortality in patients with thalamic haemorrhage.”

Please, note that as requested by reviewer #1 we have changed the title including the comparison with internal capsule-basal ganglia haemorrhage. The new title reads: “Thalamic haemorrhage vs. internal capsule-basal ganglia haemorrhage: clinical profile and predictors of in-hospital mortality.”
AUTHORS’ COMMENTS TO SUGGESTIONS OF DR. AZMAN ALI RAYMOND

We agree with the reviewer that the proposed title is more specific and informative. Therefore, the new titled reads: “Thalamic haemorrhage vs. internal capsule-basal ganglia haemorrhage: clinical profile and predictors of in-hospital mortality.”

The Background section of the Abstract (page 2) is also modified as follows: “There is a paucity of clinical studies focused specifically on intracerebral haemorrhages of subcortical topography, a subject matter of interest to clinicians involved in stroke management. This single centre, retrospective study was conducted with the following objectives: a) to describe the aetiological, clinical and prognostic characteristics of patients with thalamic haemorrhage as compared with that of patients with internal capsule-basal ganglia haemorrhage, and b) to identify predictors of in-hospital mortality in patients with thalamic haemorrhage.”

All minor revisions, such as wrong use of terms, are corrected. The authors appreciate the reviewer’s task on this matter, particularly because English is not our mother tongue.

In the first paragraph of the Discussion, the new sentence created reads: “The prevalence of thalamic haemorrhage in different series of primary intracerebral haemorrhage vary widely from 6% in the series of Juvela et al. [11] to 15.7% in the series of Tatu et al. [12]. In a subsample of 390 with haemorrhagic stroke reported by Kumral et al. [13], thalamic haemorrhage was diagnosed in 100 patients (25.6%).”

The sentence rewritten by the reviewer is added. We have also clarified that the mortality rates of different series of thalamic haemorrhage refer to in-hospital mortality. “Thalamic haemorrhage is a severe clinical condition with an in-hospital mortality rate, in the present study, of 19%, and only one patient (2.1%) was symptom-free at discharge. The mortality rate of thalamic haemorrhage was 12% after 6 ± 6 days after stroke and 17.3% within 6 months in the series of Mori et al. [22]. In the series of Chung et al. [23], the case fatality was 37% at the time of discharge.”

In reference #6, the volume number is 13.

Reference #25 is now completed.

As noted by reviewer #2, the 47 patients with thalamic haemorrhage accounted for 13% of all patients with intracerebral haemorrhage (n = 364). Therefore, approximately one in every 8 patients (not 10 patients as stated in the first draft) with acute intracerebral haemorrhage had a thalamic haematoma.
AUTHORS’ COMMENTS TO SUGGESTIONS OF DR. RAYMOND CHEUNG

1. We have changed the title including the comparison with internal capsule-basal ganglia haemorrhage. The new title reads: “Thalamic haemorrhage vs. internal capsule-basal ganglia haemorrhage: clinical profile and predictors of in-hospital mortality.” Moreover, the Background section of the Abstract (page 2) is also modified as follows: “There is a paucity of clinical studies focused specifically on intracerebral haemorrhages of subcortical topography, a subject matter of interest to clinicians involved in stroke management. This single centre, retrospective study was conducted with the following objectives: a) to describe the aetiological, clinical and prognostic characteristics of patients with thalamic haemorrhage as compared with that of patients with internal capsule-basal ganglia haemorrhage, and b) to identify predictors of in-hospital mortality in patients with thalamic haemorrhage.”

2. Haemorrhages in the thalamus and over the basal ganglia-internal capsule are characteristic subcortical topographies; therefore, the comparison between these two sites is clinically even more relevant than a comparison with all non-thalamic intracerebral haemorrhages that would include haematomas in more distant sites, such as lobar, cerebellar or brainstem haemorrhages.

3. As shown in Table 4, the poor outcome of thalamic haemorrhage is illustrated by the comparison of in-hospital mortality rates of the different series published in the literature. The objective of the study was to determine predictors of in-hospital mortality and not predictors of severity of neurological deficit at hospital discharge.

4. Dysarthria and aphasia are joined as speech disturbances. A separate analysis for patients with dysarthria and aphasia was not made. Although chronic liver disease was more frequent in patients with thalamic haemorrhage than in patients with internal capsule-basal ganglia haemorrhage, this variable was not associated with in-hospital death in the multivariate analysis. For this reason, this positive finding is not specifically addressed in the Discussion. Various studies have shown that deleterious effect liver dysfunction associated with alcohol consumption (particularly heavy alcohol use in men) in patients with intracerebral haemorrhage (e.g., Fujii Y, et al. Liver dysfunction in spontaneous intracerebral hemorrhage. Neurosurgery 1994;35:592–596; Niizuma H et al. Spontaneous intracerebral hemorrhage and liver dysfunction. Stroke 1988;19:852–856; Niizuma H et al., Influence of liver dysfunction on volume of putaminal hemorrhage. Stroke 1988;19:987–990) but in our opinion this aspect is marginally relevant for the Discussion.

5. We agree with the frequency of thalamic haemorrhage. We have corrected the error of “one in 10 patients”. It is now mentioned in the Abstract and in the Conclusion that “one in 8 patients ....”