Review of: "Hemorrhagic stroke treated by transcranial neuroendoscopic approach"

Jan Chrastina[1]

1 St. Ann's University Hospital Brno

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Although the reviewer is not a native speaker of English language, even the first sentence of the Abstract sounds strange – therefore I would suggest instead Hemorrhagic stroke (HS) is usually treated under microscopy, but recently, an increasing number of cases have been treated under neuroendoscopy to use e.g. Although microsurgical technique is routinely used for the treatment of haemorrhagic stroke (intraparenchymal haematoma, intraventricular bleeding or subarachnoid haemorrhage), the use of neuroendoscopy is increasingly reported. In my opinion the general term haemorrhagic stroke should be specified at least as proposed above (e.g. intraparenchymal haematoma, intraventricular haematoma, subarachnoid bleeding). Also the difference between primary or secondary HS should be at least briefly specified in the Abstract. Similarly the type of surgery employed in different types of the haemorrhagic stroke must bez specified. The results are excellent but at least the presurgical condition of the patients group (e.g. GCS, the presence of a neurological deficit) should be specified. Without the specification of the above mentioned points (although to some degree specified in the full text the information value of the Abstract without the full text is insufficient.

Regarding the full text:

The sentence There were 80.1 million prevalent cases of stroke globally and 13.7 million new stroke cases in 2016. appears to be unclear to the reviewer (maybe due to unfamiliarity with the cacalculation of the pidemiological data – please specify what was the real number of new haemorrhagic stroke cases for the given year). The sentence ,, Therefore, we classified HS patients into the primary HS (PHS) and secondary HS (SHS) groups, with the former comprising primary ICH cases and the latter comprising secondary ICH and

SAH cases – I do not think it is correct to mix together SAH cases and intraparenchymal haematoma cases (the extent of brain damage in intraparenchymal haematoma), therefore I would suggest the three types of haemorrhagic stroke – primary ICH, secondary ICH (aneurysm, AVM, tumor) and SAH. I understand that many SAH patients has also intraparenchymal haematoma (but there maybe also the rupture of the intraparenchymal haematoma to the subarachnoid space), but I strongly suggest to reconsider this classification.

The first chapter of the partSurgical indication and patients selection is well written, but the classification of the outcome based on GCS at discharge (moreover I think that adapted from the classification of head

injury severity (“poor”, 6–8; “good”, 9–12; and “excellent”, 13–15.) is absolutely unsuitable for long or even short term outcome evaluation (Example - patient with GCS 13 – opening eyes to verbal command and with confused speech cannot be considered an excellent outcome, not talking about good outcome in patient with GCS 9) . Therefore the change of the outcome classification is absolutely mandatory and I would suggest either Glasgow Outcome Scale or Barthel index. Anyway , the surgical resulst regarding the degree of haematoma evacuation presented in Fig 2- 5 are impressive, although a small remark about the final clinical condition of the patient (GOS at discharge, the degree of hemiparesis particularly in basal ganglia cases,...) should be also mentioned. The rates of haematoma evacuation are excellent and the authors should be congratulated for their technical skills (how did they check the coompletness of the obliteration of the aneurysm – angiography?, ICG, or complex inspection) The problem of GE (good – excellent results based on the GCS) is a very serious problems in the Results section. Before reconsidering the paper for a new review this misleading point must be corrected (final GCS 9 is definitively not good outcome). The Discussion part of the paper dealing with the pros and cons of the surgical techniques used for the treatment of patient with haemorrhagic stroke. However in Fig. 8 **E**) Postoperative CT showed complete removal of the hematoma. there is still quite a large amount of hypertense material suggesting a large amount of residual haematoma (or artifacts from AVM clips or embolisation material - please specify).

To conclude the review – the classification of the outcome at discharge based on GCS and declaring final GCS 13 as excellent outcome and final GCS 9 as good outcome is an unacceptable drawback and before reconsidering the paper for publication reclassification based on Glasgow Outcome Scale or Barthel index must be done. Also language correction by a native speaker should be considered.