

71835-Answering Reviewers

Reviewer #1:

Scientific Quality: Grade A (Excellent)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (High priority)

Specific Comments to Authors: An interesting case to keep in mind in patients who present with convulsions.

Reply: It is our great honor to receive your active comments. Thank you very much.

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade C (A great deal of language polishing)

Conclusion: Major revision

Specific Comments to Authors: the authors describe that Convulsive-like movements may be the first symptom of BAO. It is interesting case report. Please the authors can describe the other risk factor for convulsive-like symptoms, such as diabetes, hypertension, smoking, alcohol use and other.

Reply: Thank you for your meaningful comments. We have reviewed relevant literatures about the risk factors for convulsive-like symptom. However, as the convulsive-like symptom is rare, we could not find a description of risk factors for convulsive-like symptom. In our case, the patient had no other risk factors for cerebral infarction, such as hypertension, diabetes, smoking, drinking, atrial fibrillation or valvular heart disease. We have added the related description in *Personal and family history* section (Page4-5). We consider that basilar artery occlusion may be a risk factor for convulsive-like symptom. More studies are needed to find the risk factors of convulsive-like movement after stroke or basilar artery infarction.

Reviewer #3:

Scientific Quality: Grade D (Fair)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: The authors reported a rare case of basilar artery occlusive pontine infarction with convulsive-like movements at the onset and proposed it is important to recognize this type of motor phenomenon since it may be a diagnostic clue for early diagnosis and treatment of brainstem strokes. In general, this paper is a relatively interesting. However, some parts of the manuscript are not very clearly presented, see comments below: 1. "The patient had a history of right pontine infarction 3

years prior.” Are the symptoms of the last cerebral infarction the same as this time? Detailed information should be described. 2. In the session of Physical examination, cranial nerve examination was ignored. Whether eye movements are involved is suggestive in pontine infarction. Therefore, the cranial nerve examination of such patients is essential. 3. After this patient was admitted to the hospital, all laboratory tests were normal, and there seem to be no other risk factors for cerebral infarction. What are the risk factors for cerebral infarction in this patient? 4. Convulsive-like movements should be considered secondary to ischemic stroke or caused by epileptic seizures?

Reply: We are very grateful to your meaningful comments. According your comments, we amended the relevant part in manuscript.

1. The patient had a history of right pontine infarction 3 years prior. The clinical manifestation of the last cerebral infarction was mild weakness of the left limbs, which was different from that at this time. We have added the related description in *History of past illness* section.

2. Thank you for pointing out the importance of the cranial nerve examination ignored by us. The patient did not cooperate with the eye movement examination, and no gaze was observed. Physical examination showed vague speech, bilateral symmetry of the nasolabial grooves, grade IV muscle strength in the right limbs, normal limb muscle tension, and positive bilateral pathological signs. We have added the related description in *Physical examination* section.

3. The patient seemed to have no other risk factors for cerebral infarction, such as hypertension, diabetes, smoking, or alcohol consumption. However, digital subtraction angiography (DSA) showed basilar artery occlusion. The risk factors for cerebral infarction in this patient was the atherosclerosis of the basilar artery. We have added the related analysis in **DISCUSSION** section.

4. Thank the reviewer for this valuable comment. As we don't have EEG evidence to prove this phenomenon was caused by epileptic seizures, it also confused us whether the convulsive-like movements were secondary to

ischemic stroke or caused by epileptic seizures. However, this patient had no epileptic pathogeny or risk factors for epileptic seizures, such as trauma, tumour, poisoning, infection, metabolic abnormality, or family history of epilepsy. And the patient had basilar artery occlusion manifested by the DSA image. We are inclined to believe that the convulsive-like movements were secondary to ischemic stroke. Please see DISCUSSION section.

Responses to science editor:

Thank you very much for your active comments.

Responses to *company editor-in-chief*:

Thank you very much for giving us this opportunity to revise our manuscript. According to the reviewers' comments, we have revised the manuscript. We have upload the Signed Informed Consent Form in Chinese, the original figure documents and the approval document of funding agency.