

Discrepancy between clinical presentation and cerebral imaging requires further diagnostic effort

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We read with interest the article by Mabel et al. about a 62-year-old male who suddenly developed right-sided facial weakness, dysarthria, vertigo, blurred vision and right-sided hemiparesis.¹ Despite this presentation, the patient was surprisingly diagnosed as Bell's palsy initially.¹ Magnetic resonance imaging (MRI) revealed a pontine ischaemic stroke.¹ It was concluded that "a thorough neurological examination and good clinical correlation with the patient's history and physical findings, coupled with the use of facial nerve anatomical knowledge and early employment of MRI, are imperative in clinching the diagnosis.¹ The study is attractive but raises concerns that should be discussed.

We disagree with the notion that the index patient had "isolated" facial weakness respectively Bell's palsy. In addition to facial palsy, the patient had dysarthria, blurred vision, vertigo and right-sided hemiparesis.

Arguments for ischaemic stroke and against Bell's palsy in the index patient are that facial weakness had an acute onset, that the patient had dysarthria in addition to facial weakness, that the cardiovascular risk profile was positive for diabetes, hyperlipidaemia and arterial hypertension, that blood pressure was increased to 192/119 mmHg on admission, and that the patient had developed right-sided hemiparesis for 2 days. In view of these facts, it is surprising that isolated facial weakness, respectively, Bell's palsy was initially considered in the index patient.

There is a discrepancy between the unilateral clinical presentation and the central location of the pontine lesion as presented in Figure 2. The central pontine lesion does not explain right-sided facial weakness and right-sided hemiparesis.

According to the clinical exam right-sided facial weakness was of the peripheral type. Since lesions of the facial nucleus also present with the peripheral type of facial weakness, it is crucial to rule out a central cause in patients with a cardiovascular risk profile as in the index patient.

Missing is an explanation of blurred vision. The MRI findings do not explain blurring. We should be told for how long blurring persisted and if this was due to arterial hypertension or diabetic retinopathy. Missing is the information about the HbA1c value. Missing are the results of funduscopy.

Missing is the exact course of the clinical manifestations. We should be informed about onset and end of each of clinical

presentations, facial weakness, dysarthria, vertigo, blurring and right-sided hemiparesis.

Missing is the information whether the patient was SARS-CoV-2 negative or positive on admission. Missing is a follow-up MRI to assess if the central pontine lesion persisted or resolved.

The discrepancy between dysarthria and the statement that except for the facial nerve all other cranial nerves were intact should be solved. Of particular interest is if there were any sensory disturbances, hypogeusia, or hearing impairment. Since the patient had dysarthria, involvement of the 9th and 10th cranial nerve needs to be ruled out.

Overall, the interesting study has some limitations that call the results and their interpretation into question. Clarifying these weaknesses would strengthen the conclusions and could improve the study. Since cerebral imaging does not explain the clinical presentation, alternative causes should be considered.

Reply by the authors

We take note your interest in our article. In response to the first argument on the index patient having an "isolated" facial palsy is that despite the patient mentioning he had other peripheral symptoms such as dysarthria, some right sided hemiparesis, vertigo and blurring of vision – none of these symptoms in which he could provide details on onset, duration and severity as the author has rightly noticed. Our argument for that is stated in paragraph 4 of discussion.

All patients hospitalised during the COVID-19 pandemic would have automatically been screened at the admissions department as a standard precaution and procedure in all Malaysian hospitals. Only those who are COVID-19-negative are allowed admission.

The blurring of vision could have been part of the old lacunar infarct (as explained in paragraph 4 discussion) or diabetic retinopathy or arterial hypertension for which he was referred to the ophthalmology team for routine screening of all diabetic patients as per the Malaysia Health system protocol.

A follow-up MRI was performed as clearly stated in the last paragraph of the case report section – no new changes comparatively to the initial MRI.

This article was accepted: 02 March 2023

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FUNDING

No funding was received.

DISCLOSURES

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

COMPLIANCE WITH ETHICS GUIDELINES

This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors.

REFERENCES

1. Mabel HM, Othman NB, Cheah WK. Pontine stroke: a rare mimicker of Bell's palsy. *Med J Malaysia* 2022; 77(3): 403–5.