



Background

Headache and vomiting are common presenting complaints to the emergency department (ED). Whilst the majority of cases have a benign aetiology, stroke is an important diagnostic consideration.

Case

A 39-year-old male with a past history of migraine presented to the ED with one day of headache. He had associated vomiting, which was atypical for his usual migraines. He also described generalised posterior neck pain that preceded his other symptoms. The vital signs were within normal limits. The physical examination was only remarkable for left-sided past-pointing and an ataxic gait.

Further history taking revealed that the neck pain had started abruptly during a Thai massage two days prior to presentation. Investigation with computed tomography (CT) angiography demonstrated bilateral vertebral artery dissection. CT brain showed evolving infarction of the left cerebellar hemisphere. These findings were also confirmed on magnetic resonance imaging (MRI).

The patient was commenced on aspirin and admitted for conservative management under a specialty stroke unit. At 6-month follow-up, his neurology had completely resolved, and he had returned to his normal work as a chef.



Fig A: An example of a traditional Thai massage stretching technique

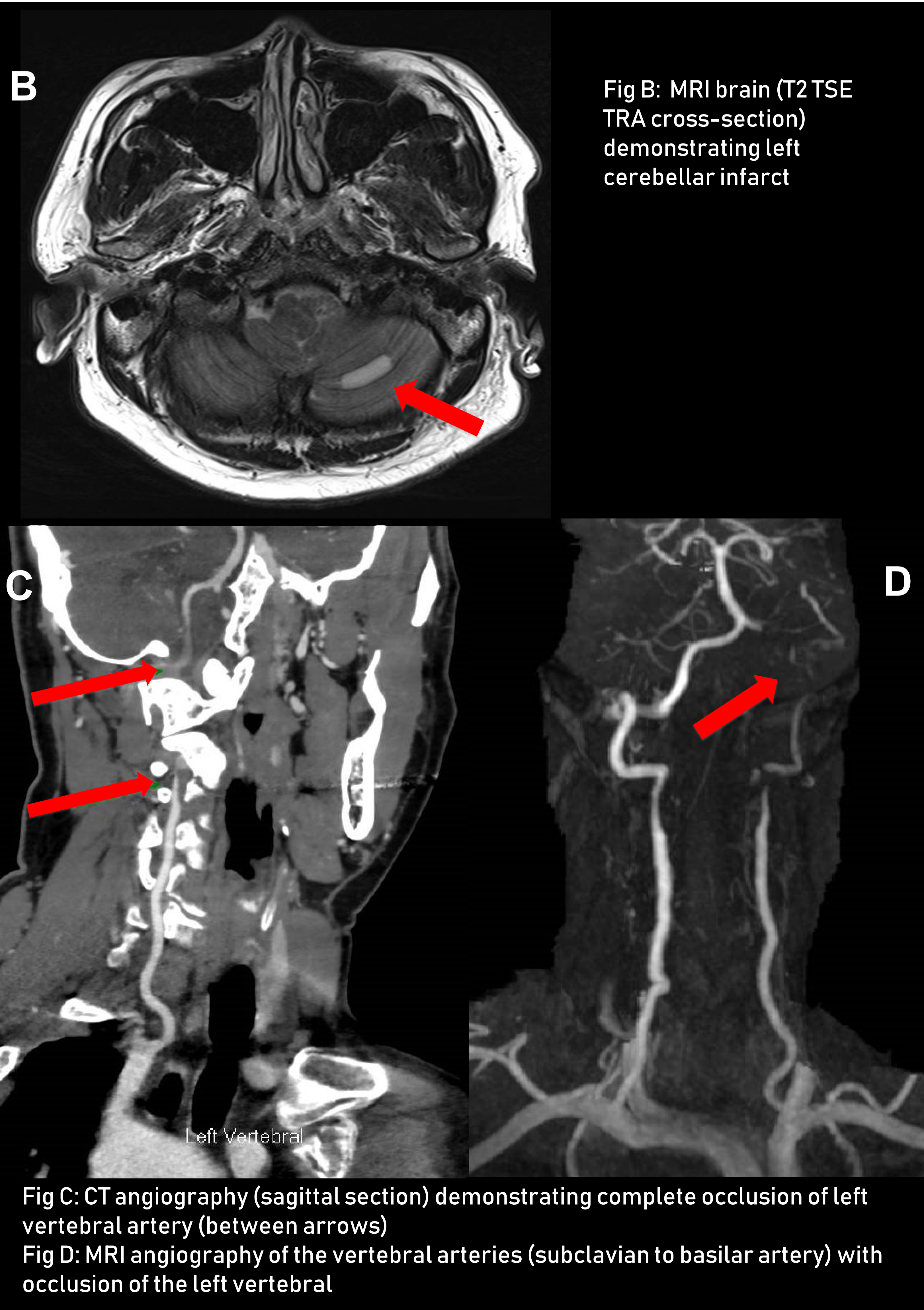


Fig B: MRI brain (T2 TSE TRA cross-section) demonstrating left cerebellar infarct

Fig C: CT angiography (sagittal section) demonstrating complete occlusion of left vertebral artery (between arrows)  
Fig D: MRI angiography of the vertebral arteries (subclavian to basilar artery) with occlusion of the left vertebral

Discussion

Massage is the most common alternative medicine in Australia.<sup>1</sup> Thai massage is becoming increasingly popular, and there are approximately 30 providers of this therapy in our hospital catchment area. We believe that this is the first case of vertebral artery dissection (VAD) and subsequent stroke to be associated with massage.

VAD is a significant cause of stroke in young patients, and can be caused by a broad range of trauma.<sup>2</sup> We postulate that this may include straining of the vertebral arteries in certain massage techniques.

Our case highlights the importance of history taking in young patients presenting with a stroke syndrome. Any recent trauma or pain affecting the neck should be identified to guide investigation. If suspicious for VAD, clinicians should proceed to early CT angiography.<sup>2</sup>

Conclusion

Vertebral artery dissection is an important consideration in young patients who present with a stroke syndrome, especially in the presence of neck pain. Massage may be a previously unrecognized cause of this pathology. Alternative medicine is commonly used, and should be given consideration as a potential source of patient harm.

References and acknowledgements

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Thanks to Kyle Beard for graphical design advice  
Reference list:  
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2. Biller J, Sacco RL, Albuquerque FC, et al. Cervical Arterial Dissections and Association With Cervical Manipulative Therapy. Stroke 2014; 45(10): 3155  
Figure A: Knot Stressed. Northern Style Thai Massage. [Image on Internet]. Available from: <http://www.knotstressed.com/thai-massage/>