An atypical cause of headache

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DESCRIPTION

A woman in her 60s presented with wake-up right lateral cervical and occipital headache and gait instability. Six months ago, she suffered from a self-limiting episode of left-sided weakness, with a normal cranial CT. At the emergency department, she was haemodynamically stable. The clinical examination was normal, and the neurological exam showed gait instability, with no deficits in cranial nerves, muscular strength or sensibility. ECG, routine blood test and a new CT were normal. The ultrasound exam performed at the emergency department showed the right vertebral artery without flow (figure 1A), compatible with severe stenosis or occlusion, and with the normal flow in contralateral artery (figure 1B). Cerebral MRI with angiography showed an acute stroke in the right posterior inferior cerebellar artery territory and confirmed a filiform and discontinuous flow in the right vertebral artery (figure 2), compatible with artery dissection. She was treated with dual antiaggregation therapy without new symptoms.

Headaches are a common complaint in the emergency department. The main aetiology of headache is migraine, with arterial dissections being very rare.[1] The cervical artery dissection is a common cause of stroke in young adults. However, only 2% of strokes are due to dissections. One of the main symptoms is headache, which occurs in more than 70% of the patients,[2] followed by Horner's syndrome and cerebral or retinal ischaemia in carotid dissections, and ischaemia of the posterior circulation in vertebral dissection. The pain of vertebral artery dissection is commonly confused as musculoskeletal. To diagnose this entity, conventional arteriography is the gold standard. Our patient presented with a headache that wakes her up and neurological symptoms, both considered red flags. The localisation, the suddenness of the pain, the presence of gait instability and the previous paresis episode made us think of vascular aetiology, performing a sonography exam that was suggestive of severe stenosis or occlusion and an MRI with angiography that diagnosed the stroke and the vertebral dissection. In our opinion, this case shows the importance of vascular study in some types of headache.

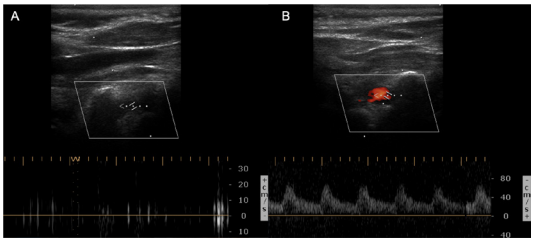

Figure 1 Supra-aortic trunk Doppler shows the right vertebral artery without flow (A), compatible with severe stenosis or occlusion, with normal flow in the contralateral artery (B).

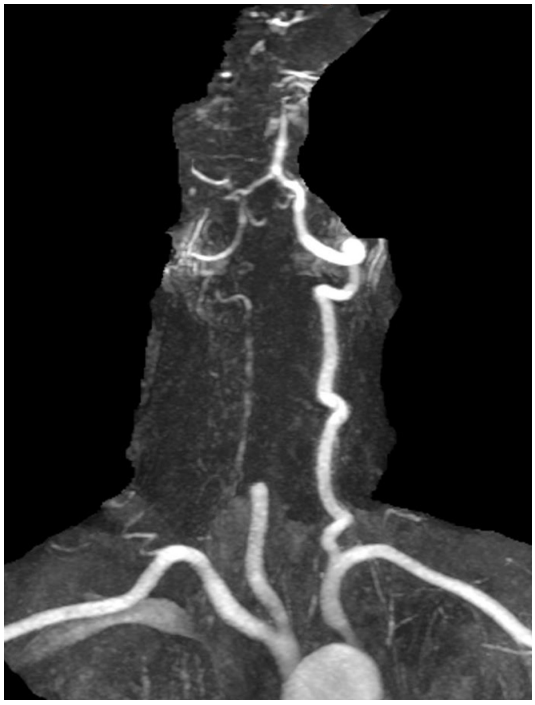

Figure 2 MR angiography with filiform and discontinuous flow in the right vertebral artery, compatible with artery dissection.

Learning points

- A vertebral dissection should be considered in patients with sudden unilateral headache or cervical pain.
- A CT cerebral angiogram should be performed if dissection is considered.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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