An unusual presentation of stroke in a young person

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Abstract
We present the case of a carotid dissection, which led to Horner’s syndrome and cranial nerve XII palsy. A 50 years old male attended with a week history of headache, which started suddenly. He developed weakness of tongue, with deviation to left side over the next 3 days.

On examination he had left miosis and ptosis and left tongue deviation. The rest of neurological examination was normal.

His initial CT brain was normal. MRI angiogram of head and neck showed occlusion of the distal part of the left internal carotid artery extending intra-cranially, suggesting a thrombosed dissection.

He was diagnosed with left Horner’s syndrome and hypoglossal palsy secondary to left internal carotid artery dissection. His case was discussed with the Vascular team who advised that surgery was not required. He was then started on aspirin.

Case
A 50 years old male, hypertensive and smoker presented to hospital with left occipito-temporal headache and neck pain that was sudden in onset.

The headache started a week prior to attendance while the patient was driving his car.

Over the next few days, there was no symptomatic relief with analgesia. He noticed left sided tongue deviation. His wife also noticed drooping of his left eyelid.

On examination, he had deviation of tongue to the left side with left ptosis and miosis. The rest of the neurological exam was normal.

An urgent CT scan was done and this was normal. MRI angiogram showed occlusion of the distal part of the left internal carotid artery and a diagnosis of left thrombosed dissection of the internal carotid artery was made.

Neurology and Vascular opinions were sought, and treatment with aspirin was commenced. The patient was then discharged with plan for follow up in neurology clinic.

Discussion
The incidence of carotid dissection is about 3 per 100000/year.

The features include ipsilateral headache, Horner’s syndrome, nerve palsies and potentially devastating cerebral ischaemic events.

Horner’s syndrome is caused by compression of the ascending sympathetic supply within the carotid sheath resulting in the triad of ptosis, miosis and anhidrosis.

Extracranial dissection can cause cranial nerve palsy with cranial nerve XII being the most commonly affected. If initial CT yields negative results, this should be followed up by more definitive imaging, such as MRA or CTA.

The goal of management is to prevent progressive neurological deficits. Antiplatelet therapy and anticoagulation have been used both individually and in combination, with antiplatelet therapy being recommended in patients with dissection.

Learning point
It is important to recognise that internal carotid artery dissection is one of the common causes of acute ischaemic stroke in young adults. It should always be considered in patients presenting with headache with Horner’s syndrome and nerve palsies.

References

Written consent from the patient has been obtained for the writing of this case report.