

cranial hypertension are more common in prepubertal children than in adults. Sixth nerve palsy is documented in 10–40% of patients in most cases, but third nerve palsies are uncommon (Tan, 2010).

This is an unusual case of idiopathic intracranial hypertension in which multiple (third, fifth and seventh) cranial nerve palsies resolved while a therapeutic lumbar puncture was performed to relieve the headache (Chari and Rao, 1991). CSF pressures can vary, and a normal reading in a patient with idiopathic intracranial hypertension may reflect an atypically low reading for that patient.

This case illustrates the finding of multiple cranial nerve palsies in a low pressure idiopathic intracranial hypertension and indicates the need to revise the modified Dandy criteria for idiopathic intracranial hypertension, which do not allow for any focal neurological deficit other than the sixth cranial nerve palsy and does not include the occasional finding of a normal CSF pressure. Complete recovery of multiple cranial nerve palsies after treatment indicates that these are false localizing

signs and indicates a pressure-related phenomenon (Digre and Corbett, 2001).

The Friedman–Jacobson criteria for the diagnosis of idiopathic intracranial hypertension specify lumbar puncture opening pressure values that are largely based on experience with little supporting normative data. Papilloedema may not always be present in idiopathic intracranial hypertension, but the frequency of true idiopathic intracranial hypertension without papilloedema is controversial, and the threshold for diagnosing it varies among clinicians.

Concepts regarding the pathogenesis of idiopathic intracranial hypertension continue to evolve; venous hypertension is certainly implicated even though it is uncertain whether venous sinus stenosis is the cause or effect of increased intracranial pressure (Friedman, 2010). **BJHM**

Capobianco DJ, Brazis PW, Cheshire WP (1997)

Idiopathic intracranial hypertension and seventh nerve palsy. *Headache* 37(5): 286–8

Chari C, Rao NS (1991) Benign intracranial hypertension—its unusual manifestations. *Headache* 31(9): 599–600

Digre KB, Corbett JJ (2001) Idiopathic intracranial hypertension (pseudotumor cerebri): A

reappraisal. *Neurologist* 7: 2–67

Friedman DI (2010) Idiopathic intracranial hypertension with Dan and beyond: the 2010 Jacobson Lecture. *J Neuroophthalmol* 30(4): 380–5

Tan H (2010) Bilateral oculomotor palsy secondary to pseudotumor cerebri. *Pediatr Neurol* 42(2): 141–2

LEARNING POINTS

- Idiopathic intracranial hypertension can atypically have low opening pressure on lumbar puncture.
- Idiopathic intracranial hypertension can present with multiple cranial neuropathies, hence a diagnosis of stroke should be made with caution.
- Multiple cranial nerve palsies are reported in cases of idiopathic intracranial hypertension, with sixth cranial nerve palsy the most common. Total resolution of these can occur following a therapeutic lumbar puncture as described in this case.
- The 'modified Dandy criteria' for idiopathic intracranial hypertension only allow for a sixth cranial nerve palsy and do not include the possibility of a normal CSF pressure.
- Papilloedema may not always be present in idiopathic intracranial hypertension.

IMAGES IN MEDICINE

Caseous calcification of the mitral valve annulus

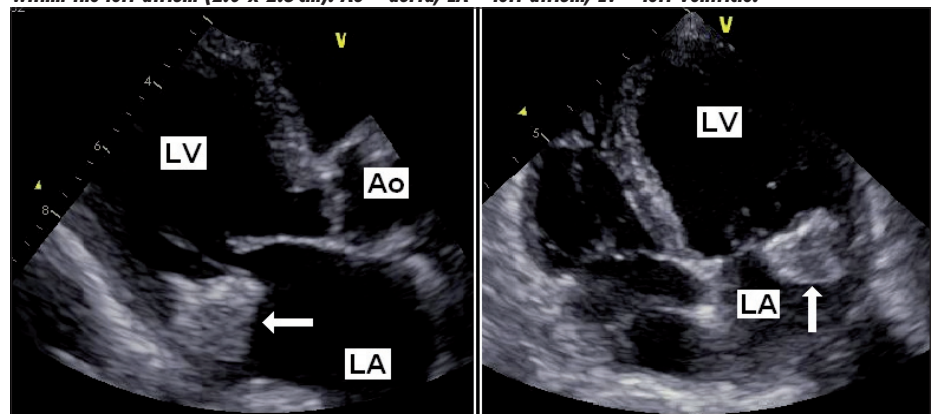
A 73-year-old woman was referred with hypertension. Blood tests were normal. Echocardiography showed a mass arising from the mitral valve annulus (*Figure 1*).

Mitral annular calcification is fairly common in the elderly and inexplicably is predominant in women. More extreme (caseous) calcification is unusual. Lesions look smooth on echocardiogram with a rim of calcium and a central lucent region, suggesting liquefaction. The caseous 'putty-like' centre is acellular and culture negative.

This is only the third case identified in 14 years in the authors' cardiology department (prevalence on echocardiography of <0.0007%). All three cases were remarkably similar, being slim elderly Asian women (aged 73, 78 and 81 years).

Such lesions usually follow a benign course and occasional reports describe spontaneous resolution, presumably as a result of rupture and extrusion of contents. Cardiac surgery can be considered when there is a significant obstructive element. **BJHM**

Figure 1. Transthoracic echocardiographic (a) parasternal and (b) apical views showing a mass (arrows) within the left atrium (2.0 x 2.3 cm). Ao = aorta; LA = left atrium; LV = left ventricle.



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