

CLINICAL VIGNETTE

Multiple fusiform cerebral aneurysms detected after atrial myxoma resection: a report of two cases

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Myxomas are the most common primary tumours of the heart. Neurological complications are frequent, occur in about one-third of patients, and can be present at the time of diagnosis of atrial myxoma or develop at a later time [1]. The association between intracranial aneurysms and left atrial myxoma is known but rare [1, 2]. Only 50 cases of a cerebral aneurysm following an atrial myxoma have been described since the first reported case in 1966 [3]. The pathogenesis of myxomatous aneurysms is still unclear. One hypothesis assumes that the aneurysms are the result of myxomatous emboli that lodge in the cerebral vessels and penetrate and infiltrate the vessel wall, leading to weakening of the artery wall and aneurysm formation. Another hypothesis is that tumour emboli occlude the vessel lumen, causing scarring and pseudoaneurysm formation. Yet another thesis is that the embolised myxoma tissue blocks the vasa vasorum of the intracranial arteries, predisposing to weakening of the vessel wall and subsequent dilatation [3, 4]. However, too few cases have been described so far to be able to accurately determine the pathogenesis of this relationship. Myxomatous aneurysms are often distal in location, fusiform, and multiple, which limits treatment options such as coil embolisation or clipping [3]. We present two cases of multiple fusiform cerebral aneurysms detected several years after a heart myxoma resection. The multiplicity and peripheral location of aneurysms argue for their myxoma aetiology. **Case 1** was a 62-year-old woman with a medical history of left atrial myxoma resection 12 years earlier, who was admitted to the neurology department with complaints of vertigo, tinnitus, and headache. Neurological examination revealed only mild central facial weakness. Cerebral digital subtracted angiography demonstrated multiple peripheral fusiform aneurysms (Fig. 1). **Case 2** was a 48-year-old man, six years after left atrial myxoma resection, who was admitted to the neurology department following a first generalised seizure due to intracranial parenchymal bleeding. His physical examination was normal except for confusion and psychomotor slowing. Digital subtracted angiography showed multiple peripheral fusiform aneurysms (Fig. 2).

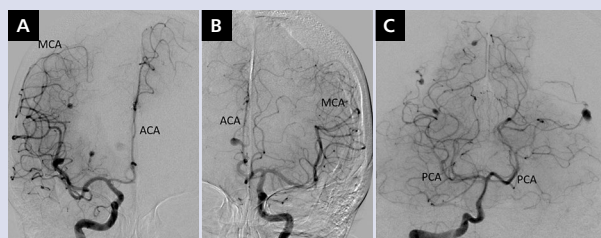


Figure 1. A, B, C. Cerebral digital subtracted angiography images showing multiple fusiform aneurysms located on peripheral branches of middle (MCA), anterior (ACA), and posterior (PCA) cerebral arteries

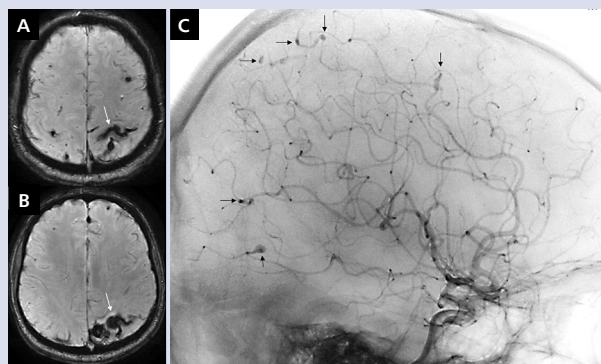


Figure 2. A, B. Susceptibility-weighted magnetic resonance images showing area of intracranial bleeding in the left parietal lobe (white arrows) from a ruptured aneurysm; C. Cerebral digital subtracted angiography image demonstrating multiple fusiform aneurysms located on peripheral branches of the middle, anterior, and posterior cerebral arteries (black arrows)

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Conflict of interest: none declared

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