Aneurysm and TIAs

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Figure 1a, b presents an MR angiography of the brain vessels demonstrating a voluminous fusiform aneurysm of the basilar artery. Its length is 5 cm and 2.5 cm in diameter; vertebral arteries can be identified inside. In proximity of the aneurysm top we can recognize the dolichoectatic basilar artery where the superior cerebellar and posterior cerebral arteries originate; circulation in both carotids is normal.

This MR angiographic picture belongs to a 76-year-old hypertensive woman, without history of neurological disorders. She developed TIAs (duration was 2 h both times) 5 months and 3 weeks before aneurysmal thrombosis.

Fig. 1. a, b MR angiography of brain vessels in a 76-year-old hypertensive women showing a voluminous fusiform aneurysm of the basilar artery. c She developed TIAs 5 months and 3 weeks before aneurysmal thrombosis.
before aneurysmal thrombosis (fig. 1c). TIA features included: dysarthria, vertigo, confusion, right arm weakness, diplopia and ataxia. She never had headache. Clinical signs were typical of vertebrobasilar territory stroke. Brain CT/MRI did not show any cerebral infarct.

Ischemic posterior circulation stroke in patients with fusiform vertebrobasilar aneurysms has been described in various articles [1–3]. This kind of aneurysm could cause posterior circulation infarcts (brainstem stroke in particular) by intraluminal thrombus, local embolism, atherosclerosis and obstruction of paramedian penetrating vessels [4]. It seems that intracranial arterial dolichoectasia is associated with higher rates of stroke recurrence [5].

References