

Images in clinical medicine



Giant unruptured intracranial aneurysm manifesting as ischemic stroke

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Giant unruptured intracranial aneurysm manifesting as ischemic stroke

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Image in medicine

A 75-year-old hypertensive woman presented with 2-day history of right sided weakness and speech disturbances. Neurologic examination revealed right hemiparesis, anosmia and dysfunction of the left third and sixth cranial nerves. Brain computed tomography scan (A,B) followed by magnetic resonance angiography (C,D) discovered an unruptured cavernous carotid aneurysm measuring 40 x39 mm in diameter (stars) on the left side with a concomitant acute ipsilateral frontal infarction (arrows). The giant calcified saccular aneurysm contained a dense, structured, and intraluminal thrombus. Laboratory studies were within normal range. Based on these

findings, the patient was diagnosed with a thrombosed unruptured carotid-cavernous aneurysm with homolateral anterior cerebral artery ischemic stroke. Exploration of the supra-aortic arteries was normal. No other sources of brain infarction were found on electrocardiogram, transthoracic echocardiography and Holter monitoring. The patient was referred to interventional neuroradiology for endovascular coiling of the aneurysm. Intracranial aneurysm is a cerebrovascular disorder in which weakness in the wall of a cerebral artery results in an abnormal widening or ballooning. Rupture of the aneurysm

is the most common and most serious complications seen in this disease. The resultant subarachnoid and/or intraparenchymal bleeding can lead to a hemorrhagic stroke, coma and/or death. Cerebral infarction is a rare complication especially seen in unruptured intracranial aneurysms. Possible pathogenic mechanisms of the infarction include parent artery occlusion due to local extension of the luminal thrombus, distal embolization, and increased mass effect. Unruptured aneurysm should be added to the list of etiologies of ischemic strokes.

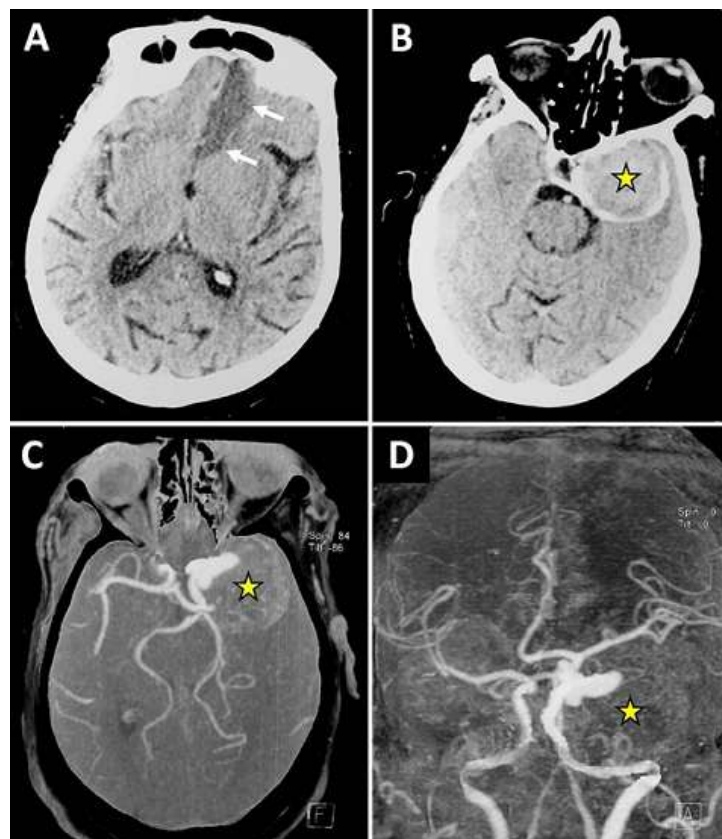


Figure 1: giant unruptured intracranial aneurysm manifesting as ischemic stroke