Arteriovenous fistula after ventriculostomy in aneurysmal subarachnoid hemorrhage

Figure Arteriovenous fistula after ventriculostomy in aneurysmal subarachnoid hemorrhage

(A) Initial angiogram prior to ventriculostomy demonstrates a right posterior communicating artery aneurysm (arrow). (B) A right ventriculostomy (arrow) was placed. (C, D) After ventriculostomy, a new arteriovenous fistula (arrow) was found during a right carotid artery angiogram.

A 66-year-old woman was found unresponsive after complaining of severe headache several days prior. She was comatose upon initial evaluation and a cranial CT revealed diffuse subarachnoid hemorrhage. A right posterior communicating artery aneurysm (figure, A, arrow) was successfully treated with endovascular embolization. Conventional angiography performed 7 days following ventriculostomy placement for hydrocephalus demonstrated interval development of a traumatic arteriovenous fistula (AVF) filling by the middle meningeal artery (figure, C and D, arrows). The AVF was treated with intra-arterial embolization. Ventriculostomy-associated AVF has rarely been reported.¹ Outcomes of untreated iatrogenic AVF are unknown, but could lead to hemorrhagic complications.

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