Subcallosal Occlusion Following Anterior Communicating Aneurysm Treatment

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A 55-year old man underwent endovascular coiling of an unruptured anterior communicating aneurysm. The coils extended over the communicating segment to completely occlude the aneurysm neck (Figure 1-A,B). The patient awoke with anterograde amnesia, without other neurological deficits. MRI revealed ischemic stroke of the anterior columns of the fornix and the genu of the corpus callosum (Figure 1-C). Retrospective reformation of the 3DSA (3D angiography reconstruction), with a wider windowing, confirmed a subcallosal artery originating from the neck of the aneurysm (Figure 1-D). Its occlusion leads to a stereotyped radio-clinical picture with a Korsakof syndrome and a stroke of the anterior pillars of the fornix1,2.


Figure 1. Fornix ischemia following anterior communicating aneurysm occlusion

DSA before (A) and after embolization (B) showing the packing protrusion over the communicant segment (arrow). Diffusion weighted imaging (C) revealing an infarction of both columns of the fornix (arrow head). 3D reconstruction (D) of the subcallosal artery (double arrow) fusion with sagittal Flair slices demonstrating fornix edema (yellow).