Signal hyperintensity of the callosum after ventriculoperitoneal shunting

Figure Fluid-attenuated inversion recovery MRI

Fluid-attenuated inversion recovery MRI before (A, B) and after (C-E) ventriculoperitoneal shunting shows postoperative ventricular decompression and hyperintensities involving the body of the corpus callosum, best illustrated on the sagittal view (E).

A 66-year-old man underwent ventriculoperitoneal shunting for communicating hydrocephalus. MRI 10 months postoperatively, done for transient headache, showed new fluid-attenuated inversion recovery/T2 hyperintensities within the corpus callosum (figure), while examination revealed improved gait and bladder control with no evidence of a callosal disconnection syndrome.

Prominent signal hyperintensity within the callosum, often sparing the splenium, follows ventriculoperitoneal shunting in a minority of patients with severe, chronic hydrocephalus. This phenomenon may arise from interstitial edema after decompression of the callosum against the falx.^{1,2} While striking, MRI changes are clinically unapparent, and familiarity with this imaging finding is important so as to avoid unnecessary interventions.

Joseph M. Ferrara, MD

From Virginia Tech/Carilion School of Medicine, Roanoke.

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Correspondence to Dr. Ferrara: jmferrara@carilionclinic.org

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Joseph M. Ferrara

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