Recovered recall memory after decompression of the fornix by surgical removal of pineal tumor

Figure 1 Pre- and postoperative (1 year) MRI

Preoperative (A) and postoperative (B) MRI. Upper panels show coronal FLAIR images and lower panels show sagittal T1-weighted MRI with Gd-DTPA (gadolinium-diethylenetriamine pentaacetic acid) enhancement. High signal intensity in the fornix shown in preoperative FLAIR image (A) is recovered postoperatively (B). FLAIR = fluid-attenuated inversion recovery.

A 45-year-old woman had a 6-month history of progressive amnesia and diplopia. At age 34, a pineal germinoma was diagnosed; whole-brain radiation induced tumor regression for 10 years. The tumor had recurred and at surgery it was detached from the fornix and resected through an occipital transtentorial approach (figure 1). The fornix was decompressed and amnesia was remarkably recovered (figure 2A).

The subtests of Wechsler Memory Scale–Revised were divided into recognition subtests and recall subtests to examine a disparity¹ (figure 2B). The recognition subtests were relatively spared, even preoperatively. In contrast, the recall subtests were severely impaired preoperatively and substantially improved postoperatively.^{1,2}

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Figure 2 Pre- and postoperative (1 year) scores of Wechsler Memory Scale-Revised

(A) The z scores of the subtests. (B) Mean z scores ($\pm$ SD) of recognition subtests (Figural Memory [FigM], Visual Paired Associates [VisPA] I/II) and recall subtests (Logical Memory [LM] I/II, Verbal Paired Associates [VerbPA] I/II, Visual Reproduction [VisRP] I/II).

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