of the corpus callosum. Quantitative analysis of the MRI in comparison to a normal population reveals significant deviation on several measures. Neuropsychological testing suggests impairment in measures of overall cortical integrity, speech and language functioning, sensation and perception, visual spatial and constructional abilities, attention and concentration, motor functioning, and intellectual functioning. However, her relatively higher scores on achievement measures indicate an ability to compensate for her deficits in some areas with additional assistance and increased repetition. In addition, although the patient manifests some motor slowing upon neurological examination and neuropsychological testing, her gross and fine motor deficits are relatively minor. Relevant aspects of brain behavior relationships in relation to this case are discussed in addition to implications for cognitive development and anatomical compensation.

Schwartz, T. J., Chang, C. W. J., & Mirski, M.
Early Identification of Neurocognitive Impairment After Subarachnoid Hemorrhage.
Subarachnoid hemorrhage (SAH) secondary to rupture of an intracranial aneurysm represents a neurological catastrophe, and the need for urgent and aggressive medical management. Cerebral vasospasm, the response of the large basal cerebral arteries to the effects of SAH, is the major medical complication of this disorder, but is often undiagnosed by traditional measures until more permanent brain damage has already taken place. Neuropsychological (NP) testing has been suggested to be the most sensitive indicator of brain dysfunction following SAH and subsequent vasospasm, although a prospective study from time of injury is lacking. We evaluated a patient following clipping of a ruptured aneurysm who ultimately had a good neurological outcome. A comprehensive NP battery was performed on postoperative day 1 (post-SAH day 2) followed by serial NP exams over the next 10 days during the peak vasospasm onset period. These data were then correlated with daily neurological exams (NIH Stroke Score-NIHSS), Mini-Mental exam (MM), and transcranial doppler (TCD) tests for vasospasm performed by physicians blinded to the NP results. At baseline, mild-moderate deficits in verbal learning and information processing speed were observed. Early cognitive decline from vasospasm as determined by TCD was observed on tests of sustained attention, verbal learning and fluency, and sequencing ability. Later decline was noted on tests of visual perceptual function. These deficits manifested prior to deterioration of bedside neurological performance. The NP screen was more sensitive to the onset of clinical vasospasm than the other screening measures and correctly differentiated right versus left hemispheric dysfunction as correlated in time with TCD abnormalities. At 6 months post-SAH, NP measures continued to demonstrate cognitive dysfunction, despite normal NIHSS and MM exams. In this patient, NP testing was sensitive in demonstrating neurological impairment following SAH and warrants further investigation of this tool in identifying potentially reversible ischemia due to vasospasm.

Morgan, J. E., Kutner, K. C., Lengenfelder, J. M., & Nygaard, T. G.
Unexpected Preservation of Function in a Huge Dominant Temporal Lobe Glioma.
“Silent” brain tumors are those which, despite their pressure in the brain, appear to result in little or no frank neurologic or neuropsychologic dysfunction. The precise mechanisms underlying this phenomenon may be related to the tumor not having reached sufficient proportions to cause increased intracranial pressure, or that the tumor is in an area of the brain that has potentially more space for the growing mass, and/or that the tumor is in brain area that underlies less specific or clearly manifest functions. Such tumors are said to be located in “silent” areas of the brain (e.g., the ventricular system or