

13. Bank W, Chance B. An oxidative defect in metabolic myopathies: diagnostic by non-invasive tissue oximetry. *Ann Neurol* 1994;36:830–837.
14. Abe K, Matsuo Y, Kadekawa J, Inoue S, Yanagihara T. Measurement of tissue oxygen consumption in patients with mitochondrial myopathy by non-invasive tissue oximetry. *Neurology* 1997;49:837–841.
15. Van Beekvelt MC, Colier WN, Wevers RA, Van Engelen BG. Quantitative measurement of oxygen consumption and forearm blood flow in patients with mitochondrial myopathies. *Adv Exp Med Biol* 1999;471:313–319.
16. De Stefano N, Argov Z, Matthews PM, Karpati G, Arnold DL. Impairment of muscle mitochondrial oxidative metabolism in McArdle's disease. *Muscle Nerve* 1996;19:764–769.
17. Vissing J, Lewis SF, Galbo H, Haller RG. Effect of deficient muscular glycogenolysis on extramuscular fuel production in exercise. *J Appl Physiol* 1992;72:1773–1779.
18. Bruno C, Bado M, Minetti C, Cordone G. Forearm semi-ischemic exercise test in pediatric patients. *J Child Neurol* 1998;13:288–290.
19. Vissing J, Salamon MB, Arlien-Søborg P, et al. A new mitochondrial tRNA^{Met} gene mutation in a patient with dystrophic muscle and exercise intolerance. *Neurology* 1998;50:1875–1878.
20. Wibrand F, Ravn K, Schwartz M, Rosenberg T, Horn N, Vissing J. Multisystem disorder associated with a missense mutation in the mitochondrial cytochrome *b* gene. *Ann Neurol* 2001;50:540–543.

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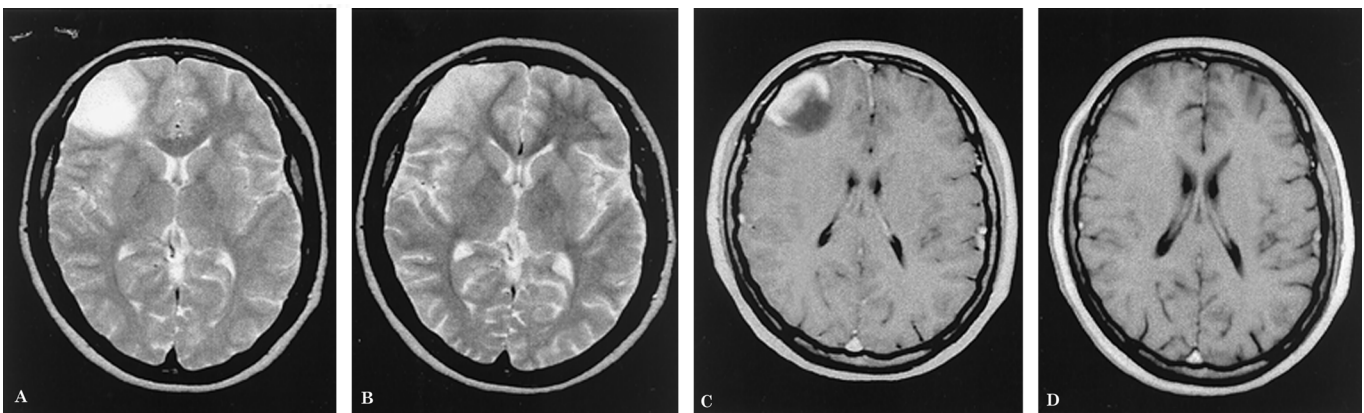


Figure. T2-weighted (A and B) and enhanced T1-weighted (C and D) axial MRI. MRI from July 1996, performed a few days after a generalized seizure, shows a gadolinium-enhancing right frontal lesion (A and C). MRI from September 1996 shows a marked regression of the lesion with complete disappearance of the cortical area of contrast enhancement (B and D).

Seizure-related contrast enhancement of a ganglioglioma

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A 41-year-old woman presented with a generalized convulsive seizure. MRI showed a gadolinium-enhancing right frontal mass (figure, A and C). Because her clinical examination was normal, she was treated with sodium valproate and followed closely. Two months later, a follow-up MRI showed a remarkable spontaneous improvement (see the figure, B and D). Subsequently, she had convulsive status

epilepticus and a repeated MRI demonstrated the reappearance of the contrast-enhancing mass. Biopsy demonstrated a ganglioglioma. The correlation between seizures and the spontaneous evolution of the mass suggested that seizures induced reversible MRI abnormalities.^{1,2} Such changes may be difficult to differentiate from tumor progression.

1. Quan D, Hackney DB, Pruitt AA, Lenkinski RE, Cecil KM. Transient MRI enhancement in a patient with seizures and previously resected glioma: use of MRS. *Neurology* 1999;53:211–213.
2. Yaffe K, Ferriero D, Barkovich AJ, Rowley H. Reversible MRI abnormalities following seizures. *Neurology* 1995;45:104–108.

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