Rasmussen Encephalitis

G. Abbas Kharal, MD, MPH^{1,2,3}, and Sashank Prasad, MD^{1,3}

Keywords

Rasmussen, encephalitis, seizures, hemiatrophy

The Neurohospitalist
2017, Vol. 7(1) 51-52
© The Author(s) 2016
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1941874416637408
journals.sagepub.com/home/nhos

Figure 1. Axial (A) and coronal (B) head computed tomography (CT) images demonstrating severe loss of brain parenchymal volume, with widened sulci and ex-vacuo dilatation of the lateral ventricle confined to the left hemisphere.

A 73-year-old woman presented with rhythmic shaking on the right side. She had developed normally until age 6, when she reportedly developed acute meningoencephalitis producing cognitive deficits and seizures. She required assistance for all basic activities of daily living. She had a chronic global aphasia as well as muscle atrophy, spasticity, dystonia, and a Babinski sign on the right. Head computed tomography images demonstrated severe diffuse atrophy of the left hemisphere (Figure 1).

Unilateral cerebral hemiatrophy is characteristic of Rasmussen encephalitis, a purportedly immune-mediated condition causing progressive neurological decline and epilepsy. The condition was first described in 1958 by Rasmussen and colleagues who reported 3 pediatric patients with intractable epilepsy and slowly progressive hemiparesis, in whom histopathological examination showed inflammatory changes and gliosis essentially restricted to 1 hemisphere.¹ Our patient's neurological illness began in 1948, 10 years

before Rasmussen's seminal description. The striking laterality of this disorder remains unexplained but may stem from localized immune responses and intractable focal seizures in the developing brain.^{1,2}

Authors' Note

Dr Kharal contributed to the acquisition of data and wrote the manuscript. Dr Prasad contributed to acquisition of data and critically revised of the manuscript for important intellectual content.

¹ Department of Neurology, Brigham and Women's Hospital, Boston, MA, USA

² Massachusetts General Hospital, Boston, MA, USA

³ Harvard Medical School, Boston, MA, USA

Corresponding Author:

G. Abbas Kharal, Department of Neurology, Brigham and Women's Hospital, 75 Francis St, Boston, MA 02115, USA.

Email: gkharal@partners.org

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

References

1. Rasmussen T, Olszewski J, Lloyd-Smith D. Focal seizures due to chronic localized encephalitis. *Neurology*. 1958;8(6):435-445.
2. Varadkar S, Bien CG, Kruse CA, et al. Rasmussen's encephalitis: clinical features, pathobiology, and treatment advances. *Lancet Neurology*. 2014;13(2):195-205.