Teaching NeuroImages:

Bilateral intracerebral hemorrhage in expanded dengue syndrome

Wagner Cid Palmeira
Cavalcante, MD
Herval Ribeiro Soares
Neto, MD
Ronnyson Susano
Grativol, MD
Raphael Ribeiro Spera,
MD
Fernando Pereira
Frassetto, MD
Leandro Tavares Lucato,
MD, PhD
Ricardo Nitirini, MD,
PhD

Correspondence to
Dr. Palmeira Cavalcante:
wagner_cid@hotmail.com

Figure Bilateral intracerebral hemorrhage

Brain fluid-attenuated inversion recovery MRI (A) and susceptibility-weighted imaging (SWI) (B) show large basal ganglia hemorrhagic lesions, vasogenic edema, and mass effect. Brain biopsy (C) demonstrates an area of recent hemorrhage in the subcortical white matter associated with neuropil vacuolization and glial reactivity (hematoxylin & eosin, $\times 100$ magnification). Follow-up brain MRI SWI (D) reveals substantial reabsorption of bleeding.

A 66-year-old Brazilian woman presented with fever, malaise, and myalgia, followed 10 days later by left hemiparesis and altered mental status. Brain MRI revealed bilateral intracerebral hemorrhages (figure, A and B) and CSF showed mild lymphocytic pleocytosis. Serologic testing for dengue fever was positive. Brain biopsy demonstrated nonspecific inflammatory changes and areas of recent hemorrhage and necrosis (figure, C). After 1 month, partial clinical and radiologic improvement occurred (figure, D). Expanded dengue syndrome¹ refers to atypical manifestations of dengue such as intracerebral hemorrhage, which is a rare presentation usually reported a week after fever onset, possibly related to release of cytokines with vasogenic activity.²

AUTHOR CONTRIBUTIONS

Dr. Palmeira Cavalcante: study concept and design. Dr. Neto: study concept and design. Dr. Grativol: study concept and design. Dr. Spera: study concept and design. Dr. Frassetto: study supervision. Dr. Lucato: study supervision. Dr. Nitirini: study supervision.

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