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OPINION

Guillain-Barré syndrome and dengue fever: report on ten new cases in Brazil

Síndrome de Guillain-Barré e dengue: relatório sobre dez novos casos no Brasil

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Dear Editor,

The clinical presentation of dengue fever may vary from minimal symptoms to high fever, joint and muscle pain, headache and skin rashes, and even to hemorrhagic or shock syndromes. Neurological manifestations of this disease may come as a result of direct dengue virus invasion in the central nervous system (CNS)[1], and/or as neuroimmunological syndromes affecting either the CNS or the peripheral nerves[2]. There is a paucity of data on cases like these, particularly regarding the discussion on therapy and prognosis. The present study reports on a series of 10 patients with Guillain-Barré syndrome (GBS) in association with dengue fever in Brazil and discusses therapeutic approaches and prognostic data on these cases. The study was approved by the Ethics Committee of Universidade Metropolitana de Santos. Data on patients with GBS in association with dengue fever were collected by neurologists from seven different Brazilian institutions in areas where dengue fever is epidemic. Only cases with complete data were included in this series.

Table. Data on patients with Guillain-Barré syndrome in association with dengue fever. All the patients had positive serum tests for dengue fever, electroneuromyography showing inflammatory peripheral polyneuropathy, and cerebrospinal fluid with protein-cell dissociation. Serum tests were negative for Zika virus and chikungunya virus.

Case	Gender	Age	Ethnic origin*	Days between DF and GBS	Neurological manifestations	Treatment	Clinical outcome
1	F	40	white	10	Dysphonia, dysphagia, bilateral facial nerve paralysis, tetraparesis, paresthesia, areflexia	Immunoglobulin	Fully recovered after 6 months
2	F	42	white	5	Tetraparesthesia	Immunoglobulin	Fully recovered after 4 months
3	M	50	white	10	Paraparesis, paresthesia	Immunoglobulin	Fully recovered after 1 month
4	M	17	black	14	Tetraparesis	Immunoglobulin	Fully recovered after 3 months
5	M	29	white	12	Tetraparesis	Immunoglobulin	Fully recovered after 3 months
6	F	25	white	7	Tetraparesis	Immunoglobulin	Fully recovered after 2 months
7	M	40	black	12	Dysphagia, bilateral facial nerve paralysis, tetraparesis, areflexia	Immunoglobulin	Fully recovered after 25 days
8	M	37	black	15	Paraparesis, paresthesia	Immunoglobulin	Fully recovered after 9 days
9	M	16	black	14	Tetraparesis, areflexia	Immunoglobulin	Fully recovered
10	F	24	white	10	Tetraparesis, tetraparesthesia	Immunoglobulin	Fully recovered after 12 months

DF = dengue fever; GBS = Guillain-Barré syndrome; *Ethnic origin: white and black as declared by the patient.

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The data on 10 patients with GBS in association with dengue fever are summarized in the Table. The clinical manifestations were variable and often severe, but recovery was mostly complete and fast. Acute motor sensory axonal neuropathy was identified in all cases. All the patients were treated with a five-day pulse of immunoglobulin and responded well. However, full recovery took a variable amount of time, ranging from nine days to one year.

We highlight that GBS in association with dengue fever is a rare condition, with less than 20 cases described in detail in the literature. A recent report on three cases in New Caledonia showed findings similar to those reported here[3], while fatal cases have recently been described in India[4] and Pakistan[5]. In Brazil, which has been an endemic region for dengue fever for over two decades, very few cases of associated GBS have been reported[6,7,8,9]. These authors believe that GBS in association with dengue fever may be underdiagnosed, even in endemic areas. It is a relatively benign condition that can successfully be treated with pulses of immunoglobulin if diagnosed early.

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