Neurologic manifestations associated with parvovirus B19 infection.

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Eighty-one cases of neurologic disease, including encephalitis, meningitis, stroke, and peripheral neuropathy, that were associated with parvovirus B19 infection were reviewed. Most patients were children, and two-thirds had central nervous system manifestations. One-third had altered immunity. Viral symptoms (odds ratio [OR], 5.7; P=.002), rash (OR, 11.5; P<.001), and peripheral nervous system involvement (OR, 12.1; P=.004) were more frequent in immunocompetent patients. Brain magnetic resonance imaging abnormalities were more frequent in patients with altered immunity (OR, 10; P=.04). In central nervous system disease, parvovirus B19 DNA was commonly detected in cerebrospinal fluid (81% of samples) and serum (85%), whereas specific antibodies were found in 33% of cerebrospinal fluid samples. Neurologic sequelae occurred in 22% of 77 patients with a known outcome, and some improvement occurred in 16%. No differences in the prevalence of sequelae were noted between immunocompetent patients (21% of whom experienced sequelae) and patients with altered immunity (25%) or between patients with central nervous system manifestations who received intravenous immunoglobulin with or without steroids and those patients with central nervous system manifestations who did not. Five patients died.

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