

RESEARCH ARTICLE

CHILDHOOD GUILLIAN-BARRE SYNDROME IN THE IRAN'S EAST AZERBAIJAN PROVINCE: 2001-2005

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Abstract

Objective

This study aims at determining the epidemiologic, presenting symptoms, clinical course and electrophysiologic features of childhood Guillain-Barre Syndrome (GBS) in the East Azarbaijan province over a period of five years.

Materials & Methods

All the patients, aged < 15 years, referred/admitted to Tabriz Children Hospital with GBS between January 2001 and December 2005 were investigated.

Results

One hundred and twelve subjects were enrolled during this period. The average annual incidence rate was 2.21 per 100000 population of children aged <15 years (CI 95%: 1.8-2.6); the highest proportion of 29% was observed in winter (P=0.10); mean age (SD) of subjects was 5.1 (3.3) years, while 61.6% were ≤5 years. The male/female ratio was 1.3. Antecedent events were identified in 80 (71.4%) patients. The most common manifestation was limb weakness; at the peak of the disease course, only 8 (7.1%) patients were able to walk without assistance. Cranial nerve involvement was found in 37.5%. Fifteen percent of patients had autonomic dysfunction, and 32.2% complained of neuropathic pain. Artificial ventilation was needed in 10.7% of patients, and three patients (2.7%) died due to cardiac arrest. Electrophysiological examination showed the demyelinating type of the disease in 54.5%; axonal type in 35.7% and 9.8% as unclassified or normal pattern. Short time to reach nadir (P=0.008), cranial nerve involvement (P=0.000), autonomic involvement (P=0.001), and axonal pattern on electro diagnosis (P=0.043) were found as risk factors for respiratory failure. In follow-up, at the end of one year, 95% of patients could walk without aid.

Conclusion

The axonal type of GBS is a relatively common form of childhood GBS occurring in East Azerbaijan.

Keywords: Guillian-Barresyndrome, Childhood, Epidemiology, Electrodiagnosis, Clinical features, East Azarbaijan