Case Report

Subacute Sclerosing Panencephalitis in a Child with Recurrent Febrile Seizures

**Ayşe Kartal,¹ Ayşegül Neşe Çıtak Kurt,² Tuğba Hirfanoğlu,²
Kürşad Aydın,² and Ayşe Serdaroğlu²**

¹Department of Child Neurology, Inonu University Faculty of Medicine, Malatya, Turkey

²Department of Child Neurology, Gazi University Faculty of Medicine, 06500 Ankara, Turkey

Correspondence should be addressed to Ayşe Kartal; kartalays@gmail.com

Received 3 August 2014; Revised 29 January 2015; Accepted 8 February 2015

Academic Editor: Piero Pavone

Copyright © 2015 Ayşe Kartal et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Subacute sclerosing panencephalitis (SSPE) is a devastating disease of the central nervous system (CNS) caused by persistent mutant measles virus infection. The diagnosis of SSPE is based on characteristic clinical and EEG findings and demonstration of elevated antibody titres against measles in cerebrospinal fluid. Subacute sclerosing panencephalitis can have atypical clinical features at the onset. Herein, we report an unusual case of subacute sclerosing panencephalitis in a child with recurrent febrile seizures. The disease progressed with an appearance of myoclonic jerks, periodic high amplitude generalized complexes on EEG, and elevated titers of measles antibodies in cerebrospinal fluid leading to the final diagnosis of subacute sclerosing panencephalitis.

1. Introduction

Subacute sclerosing panencephalitis is a progressive, fatal neurodegenerative disease caused by an aberrant measles virus in the central nervous system [1]. The typical clinical presentation of subacute sclerosing panencephalitis includes behavioral and intellectual impairment followed by myoclonia and complete neurological deterioration depending on the degree of neuroanatomical structure involvement [2]. However, the initial characteristics and clinical course of the disease can be highly variable. Different types of seizures as prominent and a first symptom of subacute sclerosing panencephalitis are also a typical clinical presentation [3, 4]. In this report, we describe a child with subacute sclerosing panencephalitis who had history of recurrent febrile seizures.

2. Case Report

A 5-year-old boy was admitted to the Pediatric Neurology Department with a history of recurrent febrile convulsions which were first seen at two months of age. For the last two months they were accompanied by axial myoclonic jerks, head drops, and decreased attention span. He was born at

term by spontaneous normal delivery. The antenatal period was uneventful.

Milestones were achieved normally but he had not received any of his vaccinations, except for a dose of diphtheria, tetanus, pertussis vaccine. He also had past history of viral illness with skin rash and conjunctivitis, suggesting measles when he was 8 months old. His family history was negative for psychiatric or neurologic illnesses. His first febrile convulsion was observed at the age of 2 months a day after receiving a diphtheria, pertussis, and tetanus vaccination. This progressed to status epilepticus which lasted for 30 minutes. His second febrile generalized clonic seizure occurred 2 months later and prophylactic phenobarbital therapy was initiated. Afterwards he experienced two or more generalized clonic seizures per year, occurring mainly with fever. When he was 3 years old, treatment was supplemented with valproate due to a febrile generalized status epilepticus lasting one hour. During his fourth year, multiple febrile generalized tonic-clonic seizures of variable lateralization did not benefit from phenobarbital and valproate therapy. At the age of five, brief head nodding, myoclonic jerks, and cognitive stagnation appeared. Physical examination of the patient on admission was normal for vital signs.

- first symptom: a case report," *Japanese Journal of Infectious Diseases*, vol. 59, no. 5, pp. 317–319, 2006.
- [4] M. M. Cruzeiro, T. C. Vale, L. A. Pires, and G. M. Franco, "Atypical subacute sclerosing panencephalitis: case report," *Arquivos de Neuro-Psiquiatria*, vol. 65, no. 4, pp. 1030–1033, 2007.
- [5] P. S. Dimova and V. S. Bojinova, "Case of subacute sclerosing panencephalitis with atypical absences and myoclonic-atonic seizures as a first symptom," *Journal of Child Neurology*, vol. 19, no. 7, pp. 548–552, 2004.
- [6] R. Kravljanac, N. Jovic, M. Djuric, and L. Nikolic, "Epilepsia partialis continua in children with fulminant subacute sclerosing panencephalitis," *Neurological Sciences*, vol. 32, no. 6, pp. 1007–1012, 2011.
- [7] S. Praveen-kumar, S. Sinha, A. B. Taly et al., "Electroencephalographic and imaging profile in a subacute sclerosing panencephalitis (SSPE) cohort: a correlative study," *Clinical Neurophysiology*, vol. 118, no. 9, pp. 1947–1954, 2007.
- [8] R. K. Garg, "Are SCN1A gene mutations responsible for genetic susceptibility to subacute sclerosing panencephalitis?" *Medical Hypotheses*, vol. 78, no. 2, pp. 247–249, 2012.
- [9] B. D. Moseley, E. C. Wirrell, and K. Nickels, "Generalized periodic epileptiform discharges in a child with Dravet syndrome," *Journal of Child Neurology*, vol. 26, no. 7, pp. 907–910, 2011.
- [10] M. Takayanagi, K. Haginoya, N. Umehara et al., "Acute encephalopathy with a truncation mutation in the SCN1A gene: a case report," *Epilepsia*, vol. 51, no. 9, pp. 1886–1888, 2010.