Alternating hemiplegia of childhood: Case report

Abram Topczewski¹, Jairo Wagner², Patricia da Silva Souza³

ABSTRACT

The case of a 13-year old boy presenting alternating hemiplegia of childhood that began later than usual is reported. The clinical course suggests, however, a case of benign alternating hemiplegia of childhood. The treatment with flunarizine was good for the patient.

Keywords: Hemiplegia/drug therapy; Migraine disorders; Flunarizine/therapeutic use

INTRODUCTION

The alternating hemiplegia of childhood was first described in 1971, by Varret and Stell¹, and is a rare condition characterized by transient episodes of hemiplegia that sometimes affects one side of the body and sometimes another side²⁻³. These episodes can last from a few minutes to some days. Most cases are sporadic².

The clinical manifestations may initiate at the neonatal period up to the age of four years, and the frequency is higher before the age of 18 months and the condition tends to disappear at 5 and 7 years of age²⁻⁴⁻⁵.

CASE REPORT

RMF, 13-year-old, male, woke up in the morning and felt some difficulty to get up and out of bed; he was somehow disoriented and with dysarthric speech. When he got out of bed he noticed evident left hemiparesis. After three to four hours he was submitted to skull computerized tomography that was normal, as well as the magnetic resonance imaging (MRI) and MRI angiography.

The electroencephalogram showed slowness and absence of physiological rhythm in the right frontotemporal region (figure 1). The clinical picture completely regressed within 12 hours. Four days later he presented another episode characterized by right hemiplegia, dysphasia and confusion.

The electroencephalogram showed slowness of cerebral electrical activity in the left frontotemporal region and normal tracing in the right cerebral hemisphere (figure 2). On the PET-scan there were marked signs of hypometabolism of fluorodesoxyglucose in the frontal, parietal and occipital regions of the left cerebral hemisphere (figure 3).

The skull magnetic resonance imaging (MRI) and MRI angiography were normal.

Twenty-four hours later the neurological examination was normal.

Although the patient presented impaired neuropsychomotor development and attention-deficit disorder with hyperactivity (ADDH), these were not aggravated after the episodes.

There was no history of migraine among direct relatives but five close relatives had suffered ischemic stroke.

After the second episode the patient initiated treatment with flunarizine and has been asymptomatic for eight months.

¹ PhD. Neuropediatrician, Hospital Israelita Albert Einstein - HIAE, São Paulo (SP), Brazil.
² PhD in Nuclear Medicine, Hospital Israelita Albert Einstein - HIAE, São Paulo (SP), Brazil.
³ PhD in Neurophysiology, Hospital Israelita Albert Einstein - HIAE, São Paulo (SP), Brazil.

Corresponding author: Abram Topczewski – Av. Albert Einstein, 627 - sala 1.303 - Real Parque – CEP 05652-900 - São Paulo (SP), Brazil - Tel.: 3747-4092/3747-3303 - e-mail: abram@einstein.br

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DISCUSSION

Alternating hemiplegia of childhood is a rare clinical picture that can manifest before the age of four years and presents dystonic movements and nistagmus, as well as progressive intellectual and motor impairment\(^{(5,6)}\).

Our patient had some characteristics that were different from the most frequent findings reported in the literature, considering the age at onset of the hemiplegic episodes. The first hemiplegic episodes occurred later than usual, at the age of 13 years, and most discussions available in the literature do not address this age. Mikati et al.\(^{(7)}\) reported the onset of the condition can occur at 4 to 6 months of age. The motor deficit can persist up to 10 days\(^{(8)}\). Our patient did not present motor difficulties 24 hours later. Headache was not reported by our patient, accompanying a deficit in motor picture. According to Barlow\(^{(9)}\), 20% of cases of alternating hemiplegia do not present associated headache. The preexisting neuropsychomotor development deficit did not aggravate after the hemiplegic episodes, as described in the literature\(^{(3,5,6)}\). The ADDH symptoms also maintained stable.

The diagnosis of alternating hemiplegia is clinical and several authors correlated it with migraine\(^{(4,7)}\).

The alterations can be demonstrated in the acute phase by skull SPECT, which shows areas with hypoperfusion like in migraine patients\(^{(4,10)}\).

In the critical period the PET scan revealed hypometabolism areas in the left cerebral hemisphere, coinciding with slowness of electrical activity found in the same hemisphere (figure 3).

The clinical manifestations presented by our patient differ from the classic picture of alternating hemiplegia of childhood. However, the later onset, absence of intellectual and motor impairment after the clinical events and the association with ADDH suggest benign familial hemiplegia of childhood\(^{(6,11)}\). The etiology is unknown, but it is considered a chanellopathy similar to hemiplegic migraine\(^{(6)}\).

Treatment with flunarizine was used and presented good results, according to other reports, and reduced the number and intensity of the hemiplegia crises\(^{(4,7,8)}\). Since the last episode the patient has been on flunarizine and has benefited from this management.

CONCLUSION

Alternating hemiplegia presented by the patient here described differed from the classic picture of the disease. Treatment with flunarizine presented good results.
REFERENCES


