

LETTERS

Cow's milk allergy and rolandic epilepsy: a close relationship?

BACKGROUND

Over many years in paediatric allergology we (SL and TF) have observed a higher incidence of allergy in the children with epilepsy and their immediate families than in the controls and their families.¹ It has nevertheless proved impossible to demonstrate a strict correlation between allergy and epilepsy, and most of the reports are anecdotal and open to any and every aetiological hypothesis.² Interest in food allergy as a cause or aggravating factor of epilepsy was reawakened by Egger, whose studies on children suffering from migraine and/or hyperactive syndrome reported an improvement in the convulsive symptomatology subsequent to an oligoantigenic diet.³ Rolandic epilepsy is the best known and described form of idiopathic epilepsy and unquestionably the one with the best prognosis. Given the partial nature of the fits as well as the low level of frequency and danger registered in the literature, it is preferred in most cases to limit the pharmacological treatment of this disorder. When such treatment does prove necessary, sodium valproate or carbamazepine are nearly always used.

OBJECTIVE

In view of previous experiences showing the efficacy of an elimination diet for cow's milk (CM) and derivatives in cases of partial idiopathic or cryptogenetic epilepsy,⁴ a preliminary study was carried out on children diagnosed as suffering from rolandic epilepsy.

METHODS

We enrolled 56 children (34M; 22F), aged 4 to 14 years, suffering from rolandic

epilepsy with high frequency of fits (2–3 clusters in 1 month). All the patients underwent a diagnostic procedure to ascertain CM allergy by means of prick test and level of IgE specific for CM proteins as well as total IgE. In 20/56 children, the prick tests were positive for CM proteins, while total IgE were within the norm and specific IgE were present. A 1-month diet without CM led to the disappearance of the neurological symptoms as well as the EEG anomalies. The diagnosis of CM allergy was verified after 4 weeks of diet by means of orally administered double-blind placebo-controlled food challenge (DBPFC): 17/20 children underwent a seizure analogous to those previously experienced with reappearance of paroxysmal electroencephalographic anomalies. Non-allergic subjects (39/56 cases) underwent a pharmacological treatment with sodium valproate or carbamazepine. The allergic subjects, positive to DBPFC (17/20 cases), were treated with a CM free diet.

RESULTS

The children of non-allergic group displayed complete clinical and EEG remission in 29/39 cases (74%). Hypertransaminasemia and slight leucopenia attributable to the pharmacological treatment were observed respectively in two and three cases. The CM free diet made it possible to obtain complete clinical remission in 17/20 (85%) cases of the allergic group as well as the normalisation of EEG with no undesired effects. The clinical follow-up was carried out on all patients for 1 year.

CONCLUSION

The study suggests that a CM free diet makes it possible to obtain complete clinical and electroencephalographic remission with no side effects. In the light of the established multifactorial nature of this form of epilepsy, we suggest that the

complex immunological mechanism that regulates the allergic reaction may play a non-negligible role in accounting for this epileptic manifestation. In other forms of epilepsy, to the best of our knowledge, a CM free diet does not have a therapeutic role.⁵ Future studies are however needed to shed more light on the relations among rolandic epilepsy and food allergy, and eventual food-related comorbidity.

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Competing interests None.

Patient consent Obtained from the parents/guardians.

Ethics approval Approval for the study was obtained from the Ethics Committee, Policlinico Umberto I Hospital, Rome, Italy.

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