Abdominal epilepsy at the Loandjili general hospital: about two cases

Epilepsie abdominale à l'hôpital général de Loandjili: à propos de deux cas

SOUNGA BANDZOUZI Prince Eliot Galieni[1,2] ,TSIBA bertin[3], ATIPO IBARA OLLANDZOBO- IKOBO Lucie[4,2] , MPANDZOU Ghislain Armel[2,5], MO-TOULA LATOU Dina Happhia[2,5] , GAMS Daniel[6] , KOUBEMBA Godefroy Charles[1], OSSOU- NGUIET Paul Macaire[2,5] , ATIPO IBARA Blaise Irénée[2]
1- Department of Neurology, Loandjili General Hospital, Pointe-Noire, (Congo)
2 - Faculty of Health Sciences, Marien Ngouabi University, Brazzaville, (Congo)
3- Department of Pediatric, Loandjili General Hospital, pointe-Noire, (Congo)
4- Department of Pediatric, University Hospital of Brazzaville, (Congo)
5 - Department of Neurology, University Hospital of Brazzaville, (Congo)
6- Department of Neurology, Douala General Hospital, (Cameroon)
Auteur correspondant : SOUNGA BANDZOUZI Prince Eliot Galieni
Email : eliotprince2002@yahoo.fr
Conflicts of interest none

Abstract

Abdominal epilepsy is a rare cause of paroxysmal abdominal pain, often overlooked and forgotten by physicians. We report two observations collected over a period of 05 years. The diagnosis was confirmed by electroencephalography. The treatment based on sodium valproate was effective in both cases as they became seizure free during the follow-up.

Keyswords: Abdominal epilepsy
Electroencephalography- Loandjili

Introduction

Abdominal epilepsy (AE) is one of the uncommon causes of abdominal pain [1, 2]. It is mainly characterized by a paroxysmal episode of abdominal pain, various abdominal symptoms, abnormalities in the electroencephalogram (EEG) and a favorable response to antiepileptic drugs (AED) [3]. We report two cases in 05 years at the Loandjili general hospital in Pointe-noire.

Observations

Observation n ° 1

The first case was LRM born on 24/04/2011 is 7-year-old boy, without significant medical history. He has been hospitalized several times and followed for 3 years for intense abdominal pain, paroxysmal, occurring by short-lasting episodes ofPeri-ombical pain, associated to nausea, vomiting and pallor. These episodes were followed by fatigue and drowsiness. The clinical examination was strictly normal. There was no fever, jaundice, dysuria, or transit disorder. Paraclinical examinations including abdominal ultrasound, cytobactériologique examination of urine, parasitological examination of stools were normal. Given the frequency and repetition of episodes during hospitalization, the diagnosis of abdominal epilepsy was discussed. The electroencephalogram (EEG) showed widespread epileptic-type puffs, thus confirming the diagnosis. A treatment based on sodium valproate at the rate of 20-30 mg/kg/d was instituted with good results. The child no longer presented an episode of abdominal pain and the electrical Evolution (EEG) was favorable after 06 months.

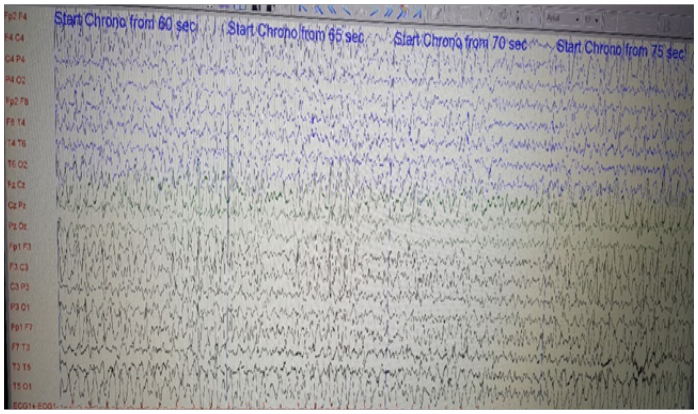

Figure 1: LRM plot showing paroxysmal anomalies with generalized wave peak type.

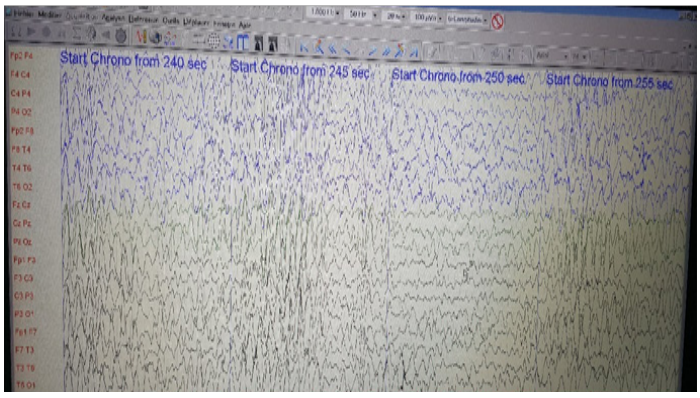

Figure 2: Normal EEG trace of LRM after 06 months of treatment under sodium valproate.

Observation n ° 2

The second case was E. Mb male born on 02/03/2011 is 07 years old, with no particular history, several times hospitalized and followed for 5 years for intense abdominal pain of sudden onset, paroxysmal, short duration, sitting in peri-ombical With nausea, vomiting and followed by fatigue and drowsiness. These pains are rebellious to the usual painkillers. There was no fever, dysuria, transit disturbances. Paraclinical examinations, including abdominal ultrasound, cytobactériologique examination of urine, parasitological examination of stools, fibroscopyœsogastroduodénale, were normal. In front of the frequency and access of abdominal pain, epilepsy

in its abdominal form is evoked and confirmed by an EEG. Treatment with sodium valproate at a dose of 20-30 mg/kg/d allowed control of abdominal pain access with normalization of EEG after 05 months of treatment.

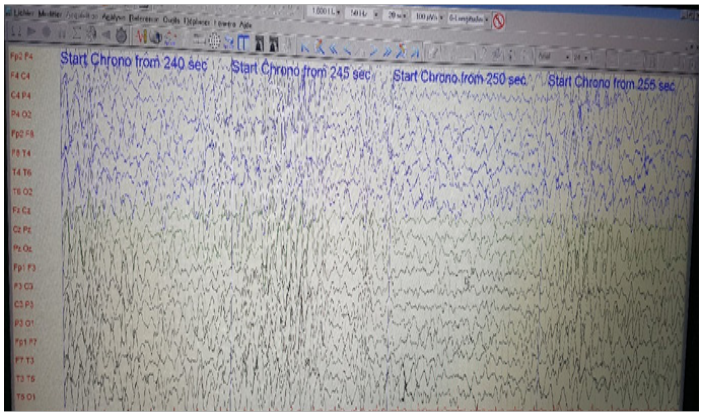

Figure 3: Path of E Mb showing paroxysmal anomalies with generalized wave peak type

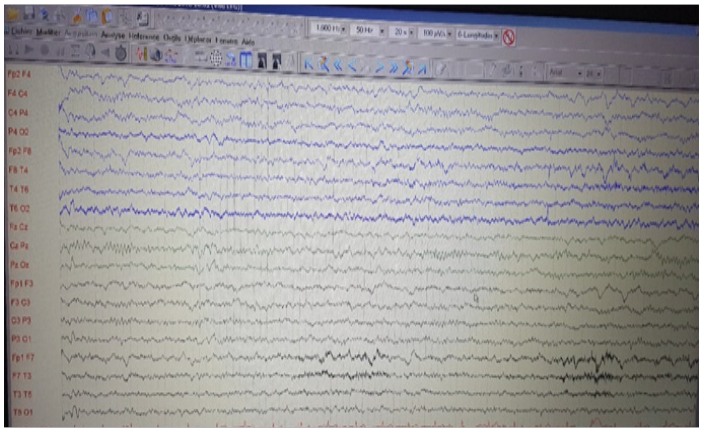

Figure 4: Control plot of E Mb after 06 months of treatment under sodium valproate, normal.

Discussion

Recurrent episodes of abdominal pain are common in children [3]. In a minority of patients in whom abdominal disease is excluded, a neurological cause should be considered, including migraine and abdominal epilepsy [3]. Pain as an ictal sign apart from other sensory phenomena is a rare epileptic feature. The diagnosis of AE can be very difficult. Some patients are considered to have psychogenic abdominal pain and treated without improvement [4]. Others have been exposed to an exploratory laparotomy without significant results to explain the symptoms [1, 6]. According to the International League Against Epilepsy, AE is considered part of simple or complex partial seizures [7]. This rare epileptic event should be suspected in patients with unexplained paroxysmal abdominal pain with loss or impairment of consciousness, migraine-like symptoms, confirmed by EEG, and / or good response to AEDs [8, 9]

In Young and Blume's study of 858 epileptic patients, only 24 (2.8%) felt pain as an important part of their seizures. Most of them reported headaches (11 of 24) or unilateral facial and body pain (10 of 24). Only 3 (0.3%) of their patients with epilepsy had ictal abdominal pain. [10]

This form of epilepsy presents essentially abdominal pains which are of variable intensity. Sometimes the pain is reduced to a simple sensation of discomfort, weight, epigastric ball. Often, the pain is more important realizing a torsion's sensation, grinding, cramps or colic. The pain was intense in our two cases. The topography of the abdominal pain was diffuse and more intense in periumbilical region. Their duration is usually short, but some episodes can last few hours [11, 12]. This pain can be isolated or associated to other signs of great value: according to Levingston [11] one can observe vasomotor signs (nauseas, vomiting, borborygmic sounds) in 80% of cases), vegetative disorders (pallor, sweating in 60% of cases, diarrhea or urinary symptoms in 12% of cases and impairment of consciousness in 8% of cases). These vasomotor and vegetative signs were observed in our children. Seizures are not observed in this condition [13]. This clinical manifestation is not specific and makes difficult the diagnosis. Short-lasting of episodes, paroxysmal features associated to nausea, vomiting and pallor followed by fatigue and drowsiness generally focus the attention of physicians [14].

Focal epilepsy with gastrointestinal signs is now considered a clinical entity defined in the classification of epileptic seizures [6]. A review of English literature reports 36 cases over the past 34 years. [1]

The etiological investigation was completely normal. That led us to perform an EEG which helped us to establish the diagnosis by showing epileptic abnormalities.

Epileptic abnormalities could be located at one or both temporal lobes [13] or could be generalized. Abnormal EEG activities found were spikes-waves or polyspikes with a rhythm of 6-14 / second. Dysrhythmias have been noted [14]. The EEG activity can also be normal [11]. Bayoudh reported an abnormal EEG pattern in these 3 children followed over a period of 07 years [13].Our two children had generalized wave spikes, testifying to widespread epilepsy.

Evolution, under monotherapy (sodium valproate, carbamazepine or phenobarbital), is generally favorable [16]. Levingston reported a favorable evolution on AED in 80% of cases [11]. Bayoudh [15] notes a good evolution in these 03 children. If monotherapy is not efficient on controlling seizures, a benzodiazepine can be added [16]. Our two children had a good clinical and electrical evolution under sodium valproate with a follow-up greater than 6 months. If an AE status epilepticus occurs, a treatment with clonazepam [16] can help to stop the seizures.

Conclusion

Abdominal epilepsy is rare and often unknown epilepsy in our country. It is necessary to think about when faces any iterative abdominal pain evolving by paroxysmal episode and whose etiological

investigation remain normal.Do not hesitate to ask for a electroencephalogram for confirmation diagnosis. Treatment with AED is most often effective.

Reference

1-Yunus Y, Sefer U, Dondu UU, Ismail O, Yusuf E. Abdominal epilepsy as an unusual cause of abdominal pain: a case report. Afr Health Sci. 2016 Sep; 16(3):877-879.

2-Dutta, S. R., I. Hazarika, and B. P. Chakravarty. Abdominal epilepsy, an un common cause of recurrent abdominal pain: a brief report. Gut 2007; 56:439–441.

3-Ossou-Nguiet PM, Atipo-Ibara B, Gnonlonfoun D et al. La migraine abdominale chez les etudiants en médecine à brazzaville. Le Benin médical. 2011 n° 48

4-Kshirsagar, V. Y. , S. Nagarsenkar, M. Ahmed, S. Colaco, and K. C. Wingkar.. Abdominal epilepsy in chronic recurrent abdominal pain. J. Pediatr. Neurosci. 2012; 7:163–166.

5-Singhi, P. D., and S. Kaur. Abdominal epilepsy misdiagnosed as psychogenic pain. Postgrad. Med. J. 1988; 64:281–282.

6- Topno, N., M. S. Gopasetty, and A. B. L. Kudva. Abdominal Epilepsy and Foreign Body in the Abdomen - Dilemma in Diagnosis of Abdominal Pain. Yonsei Med J. 2005; 46:870–873.

7-Benbadis, S. R. Epileptic seizures and syndromes. In E. Wyllie, ed. Neurologicclinics. Saunders, Philadelphia. 2001; Pp. 254–255

8-Franzon, R. C., C. F. Lopes, K. M. R. Schmutzler, M. I. R. Morais, and M. M. Guerreiro. Recurrent abdominal pain: when should an epileptic seizure be suspected? Arq. Neuropsiquiatr. 2002 ; 60:628–630.

9-Garcıa-Herrero, D., J. L. Fernandez-Torre, J. Barrasa, J. Calleja, and J. Pascual. Abdominal epilepsy in an adolescent withbilateralperisylvianpolymicrogyria. Epilepsia. 1998; 39:1370–1374.

10-Young GB, Blume WT. Painful epileptic seizures. Brain. 1983; 106:537–54.

11-Livingstons. Abdominal pain as a manifestation of epilepsy (abdominal epilepsy) in children. J. Pediatr 1951; 38: 687-95

12-Solonal Abdominal epilepsy in the adult. Rev Gastro 1994; 59 (4): 297-300

13-Schade G.H., Gofman H. Abdominal epilepsy in childhood. Pediatrics 1960; 25: 151-4

14-Peppercorn MA, Herzog AG, Dichter MA Abdominal epilepsy: a cause of abdominal pain in adults. JAMA 1978 ; 240 : 2450-1

15-Bayoudh F, Joulak M, Barrak S, Gannouni, Hamdi M, Médecine du Maghreb. 1999 n°75

16- Miladi N. Epilepsie à sémiologie digestive chez l'enfant : cause rare de douleurs abdominales itératives. Pédiatrie en Afrique. 1994 ; 13 : 38-9