

Pain Abdomen in a Child Aggravated after Treatment with Ciprofloxacin, Metronidazole and Tramadol: A Case Study

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ABSTRACT

A ten year old child had presented with abdominal pain and was treated with Ciprofloxacin, Metronidazole, Tramadol, Dicyclomine, Sucralfate, Pantoprazole etc. for 10 days. However his pain abdomen was further aggravated. After thorough evaluation the child was found to suffer from abdominal epilepsy syndrome. The drugs i.e. Ciprofloxacin, Metronidazole, Tramadol etc. which decrease seizure threshold were withdrawn and the child recovered after treatment with Carbamazepine.

KEYWORDS: Abdominal epilepsy, Abdominal pain, Causality assessment, Ciprofloxacin, Metronidazole.

INTRODUCTION

Pain abdomen is a common presenting feature in clinical practice. Often these cases are being treated with Tramadol, Dicyclomine, Ciprofloxacin, Metronidazole and Pantoprazole etc. But here is case about a child who presented with abdominal pain and received treatment with the above drugs. However his pain abdomen further aggravated. The detailed investigations ultimately revealed the diagnosis of Abdominal Epilepsy Syndrome in this child, which is an uncommon disorder presenting with chronic recurrent abdominal pain diverse abdominal complains, definite Electroencephalography (EEG) abnormalities and favorable response to anti-epileptic drugs.

CASE REPORT

A ten years old child had developed diffuse pain in abdomen which was episodic in nature. He was initially admitted to a district head quarter hospital and was treated with injection Dicyclomine 10mg IM S.O.S, injection Tramadol 100mg IM S.O.S, injection Ciprofloxacin 200mg IV BD, injection Metronidazole 250mg IV 8 hourly, injection Ranitidine 50mg IV 8 hourly, tablet Albendazole 400mg single dose & syrup Sucralfate/Oxetacaine (Fixed Dose Combination) one tea spoon full 8 hourly for five days with a provisional diagnosis of colitis. But his pain abdomen was not relieved and had rather aggravated. He was further admitted to the pediatrics department of a tertiary care hospital. His physical examination had not revealed any abnormality. Detailed laboratory investigations i.e. complete blood count, blood sugar, serum amylase,

stool, urine, ultrasound of abdomen and straight x-ray of abdomen also didn't reveal any abnormality. There he was again treated with injection Pentazocin 30mg/1ml IM S.O.S, injection Promethazine 12.5mg/1ml IM S.O.S, injection Dicyclomine, injection Ciprofloxacin, injection Metronidazole, syrup Sucralfate and Oxetacaine in the above mentioned doses along with tablet Pantoprazole 40 mg OD for a period of three days. He was ultimately discharged from the tertiary care hospital with a nonspecific diagnosis of pain abdomen along with an advice to take oral Ciprofloxacin 250mg Tablet BD and Tablet Metronidazole 200mg 8 hourly and Dicyclomine/Paracetamol (Fixed Dose Combination) 1 tablet S.O.S for two days. However his pain abdomen was not relieved and rather aggravated throughout the treatment. Ultimately the child had come to the authors on 11th day for advice.

CASE ANALYSIS

Past history of the case revealed that he had occasional mild attack of pain abdomen once in six months to one year. After thorough evaluation local abdominal pathology as the cause of pain abdomen was provisionally ruled out and any possible neurological pathology i.e. seizure disorder or acute intermittent porphyria as cause of this pain abdomen was considered. Lack of focal neurological deficit went against the diagnosis of acute intermittent porphyria. So an EEG was done to evaluate any seizure disorder. Interestingly EEG showed evidence of seizure disorder (Figure 1). Ultimately the child was diagnosed as a case of

Abdominal Epilepsy Syndrome. The cause of aggravation of pain abdomen during treatment was

analyzed by using WHO UMC Causality assessment Scale.¹

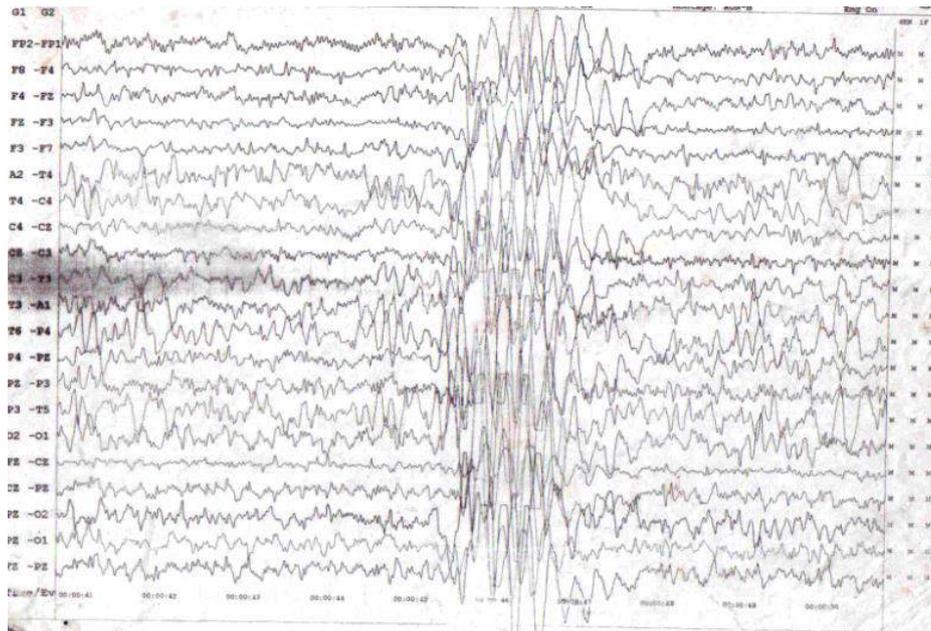


Figure 1: Shows generalize spike and wave pattern suggestive of generalized seizure disorder.

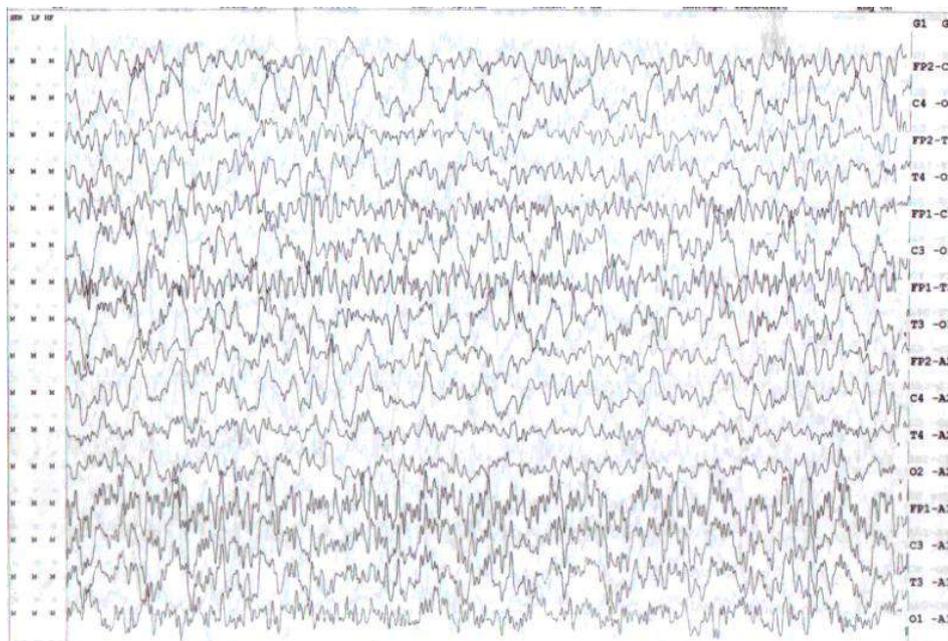


Figure 2: Shows normal background (β -wave) with occasional generalized sharp wave discharges.

Among the multiple drugs used during the treatment period, Ciprofloxacin², Metronidazole³ & Tramadol⁴ are documented for their potential to reduce seizure threshold. Hence these drugs were withdrawn from the patient & there was partial relief of pain abdomen (De-challenge test positive). So as per WHO-UMC Scale for causality assessment, Ciprofloxacin, Metronidazole & Tramadol are considered as ‘Possible’ drugs for aggravation of pain abdomen in this child with abdominal epilepsy.⁵

Further all other medications were withdrawn and the child was given tablet Carbamazepine 200mg BD in

consultation with the neurologist and ultimately the child was relieved of pain abdomen within 1 week. The EEG after treatment with Carbamazepine also showed improvement (Figure 2).

DISCUSSION

Abdominal epilepsy syndrome is an uncommon disorder presenting with chronic recurrent abdominal pain in children and adults, characterized by paroxysmal episodic abdominal pain, diverse abdominal complains, definite EEG abnormalities and favorable response to anti-epileptic drugs.⁵

In this case the initial presentation of pain abdomen in the child was due to abdominal epilepsy syndrome and this abdominal pain was further aggravated by use of Ciprofloxacin, Metronidazole, and Tramadol, which reduced the seizure threshold. The pain abdomen was partially relieved after withdrawal of these suspected drugs and treatment with anti-epileptic carbamazepine led to complete relieve of pain and improvement in EEG. Routine use of Ciprofloxacin, Metronidazole & Tramadol in undiagnosed pain abdomen may aggravate the pain if the pain is due to abdominal seizure syndrome, by further reducing seizure threshold. Hence routine use of Fluoroquinolones, Metronidazole & Tramadol in undiagnosed abdominal pain may not always be justified.

CONCLUSION

Routine use of Ciprofloxacin, Metronidazole, Tramadol etc. in undiagnosed pain abdomen may aggravate the pain if the pain is due to Abdominal seizure syndrome by further reducing seizure threshold. Hence routine use of these drugs in undiagnosed abdominal pain may not always be justified.

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