

Pseudotumour Cerebri: A Side-Effect of Nalidixic Acid

Dear Editor,

Acute gastroenteritis, as we know, is one of the commonest ailments in pediatric population. Antibiotics continue to be abused in this mostly self-limiting condition by patients, quacks and doctors. These antibiotics are not only mostly useless but can even lead to side effects more serious than the original disease. One such case is being presented here.

1-year old female infant was brought with complaints of excessive cry, refusal of feeds and gradually increasing drowsiness for past 3 hrs. Baby had diarrhea for last 24 hrs for which she was prescribed nalidixic acid by a doctor. On examination, she had abnormal staring appearance, bulging anterior fontanelle (AF), bradycardia (pulse 60/min) and hypertension (BP 110/90 mm Hg). There were no focal neurological deficits. Fundus could not be visualized as child was irritable and not cooperative. Examination of other systems was within normal limit. Among relevant investigations, CT scan was ordered which was normal. Following CT scan, lumbar puncture (LP) was performed. CSF was released under pressure and cytology and biochemistry was normal. Following LP child showed significant improvement but bulging AF and irritability persisted. Baby was diagnosed as a case of pseudotumor cerebri. As acetazolamide was unavailable, child was given IV mannitol (1g/kg). Response was dramatic and within 30 minutes child became playful and AF was no longer bulging. Nalidixic acid was discontinued and child was kept under observation for 48 hrs with regular BP monitoring and AF size. Recovery was uneventful and child was discharged after 2 days. Follow-up ophthalmological exams showed no visual deficit.

Pseudotumour cerebri (PTC) is a clinical syndrome that mimics brain tumors and is characterized by increased intracranial pressure with a normal cerebrospinal fluid cell count and protein content and normal ventricular size, anatomy and position. (1). Primary PTC is also referred to as Idiopathic Intracranial Hypertension has common presentations of headache, vomiting, bulging fontanelle, diplopia and papilledema.¹ Important investigations are a CT or an MRI brain followed by a lumbar tap which is both diagnostic and therapeutic as

it reduces the ICP. Acetazolamide is the medication most frequently used, the mechanism of action being to block the dehydration of carbonic acid into water and carbon dioxide. The secretion of CSF is thought to be highly dependent on this process.^{2,3} Steroids can be given if Acetazolamide is ineffective. Surgical interventions like lumboperitoneal shunt or optic nerve sheath fenestration have been used with rapid or progressive visual loss.⁴

Nalidixic acid, a quinolone that is frequently used in the treatment of acute dysentery is an important cause of PTC. A study of such cases in Kerala showed that all patients had received a higher than recommended dose of nalidixic acid and that 85% of them had received the drug for acute watery diarrhea.⁵

To conclude, it is essential that doctors know that Nalidixic acid must be given in the proper dosage, is to be avoided in watery diarrhea and it should be kept in mind that PTC is a potential complication.

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