

Ciprofloxacin Induced Antibiomania

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Dear Editor,

Ciprofloxacin is the most widely prescribed antibiotic in primary health care setting. It is the fluoroquinolone group of antibiotic that acts through topoisomerases of bacteria. Neuropsychiatric adverse effects of ciprofloxacin are rare and are mainly in the form of psychosis and mania [1].

The antibiotic induced mania is known as antibiomania which occurs within a short span of administration of antibiotics [2-4]. In most of cases, the primary care physician is unaware of this adverse effect of ciprofloxacin.

The aim of publishing this case report is to present the clinical features and treatment of antibiomania, which is often overlooked in primary care setting.

A 14-year-old adolescent girl presented with diarrhoea, vomiting and fever of 3 days duration suggestive of acute gastroenteritis. She was started on Inj. ciprofloxacin 100mg bid along with IV fluids, antacids and probiotics in medical ward of a rural hospital. She responded well but after 2 days of treatment, she developed abnormal behaviour viz., singing songs, dancing in the ward, excessive laugh, increased talkativeness, irritability, over demanding behaviour, over familiarity, decreased need for sleep and elated mood for which she was referred for psychiatric consultation. There was no symptom suggestive of auditory hallucination, visual hallucination, clouding of consciousness and convulsion. She was pre-morbidly well-adjusted with un-remarkable developmental, family and past history. Her complete blood count, electrolytes, renal and liver function tests were within normal limit. She was diagnosed to have episode of mania as per DSM-IV-TR criteria and probably secondary to ciprofloxacin on the basis the Naranjo ADR probability scale score of 5 [5].

The injectable ciprofloxacin was stopped in view of probable side effect. The symptoms were resolved after 4 days of change in antibiotics to Inj. ceftriaxone 1gm BID and benzodiazepine (Tab Lorazepam 1mg TID) along with other supportive treatment.

Our case shows a strong temporal relation between the onset and remission of mania in connection to antibiotic course of ciprofloxacin. Mechanism of ciprofloxacin induced psychosis and

mania is still unclear. However, It has been suggested that ciprofloxacin acts via up-regulation of glutamergic neurotransmission, which produces the distinct deficit in pre-frontal mediated executive function leading to symptoms of mania [3].

In our case, remission occurred after discontinuation of ciprofloxacin similar to published literature [6,7]. However, few authors tried to treat ciprofloxacin induced schizophrenia along with discontinuation of drug with aripiprazole and lorazepam [3]. Haloperidol along with lorazepam followed by short term course of olanzapine was tried in case of ciprofloxacin induced mania [8]. The utility of anti-psychotics in antibiomania is still questionable and unclear due to lack of supportive literature.

Even though, mania and psychosis are uncommon side effects of ciprofloxacin, the index case suggests reversibility of ciprofloxacin induced neuro-psychiatric symptoms within 48-72 hours after discontinuation of ciprofloxacin without any anti-psychotic use. However, one may consider second generation anti-psychotic for acute management of symptoms depending upon severity of symptoms and remission of symptoms after discontinuation of antibiotics. Therefore, the clinician should be vigilant about emergence of antibiomania with ciprofloxacin and its reversibility with or without any anti-psychotics.

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