

Case Report

Hallucinations Secondary to Norfloxacin - A Case Report.

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Abstract: Neuropsychiatric manifestation with the use of norfloxacin - a 4 fluoroquinolone derivative are very rare. A 20 years old male was prescribed tablet norfloxacin for the treatment of gastroenteritis but developed adverse CNS effects in the form of hallucination, which is a rare manifestation. Hence this case is being reported.

INTRODUCTION

Norfloxacin, a 4 fluoroquinolones dervative, is broad spectrum antibiotic active against Gram +ve & Gram-ve bacteria & is commonly prescribed for the treatment of gastroenteritis, urinary tract infections & gonorrhoea etc. It functions by inhibiting DNA gyrase, a type II topoisomerase & type IV topoisomerase enzymes required to separate bacterial DNA thus inhibiting cell division. It is usually well tolerated. Rarely it cause serious adverse effects in the form of hypersensitivity reactions, hepatitis, renal failure, nephrotic syndrome, prolongation, torsade delirium, seizures, peripheral neuropathy & pseudotumour colitis, thrombocytopenia, acute pancreatitis, QTc prolongation, torsade de pointes & loss of vision CNS adverse effects in the form of hallucinations, delirium, seizures, peripheral neuropathy & pseudotumour cerebriare alorare. The hallucinations secondary to the use of norfloxacin have been reported in less than 1% of patients. The aim of reporting this rare case presentation is to awaken the medical fraternity about the occurrence of rarest manifestation of hallucination with the use of fluoroquinolones.

CASE REPORT

A 21 years old boy presented with H/O loose, watery stools with blood and mucus four times daily accompanied by nausea and abdominal pain. He had no H/O fever, vomiting, weight loss, painful micturition or passage of worms in stools. His general physical examination was normal except mild tenderness in the lower abdomen over the right iliac fossa. CNS, CVS, chest and abdominal examinations were unremarkable; pulse 90/min; BP 110/80 mmHg. The laboratory profile was normal except TLC 11800/mm³ with P₈₀, L₁₉, E₁, B₀. HIV (Elisa) was negative. A diagnosis of acute bacillary dysentery was made based on the stool examination. He was put on treatment with norfloxacin 400 mg twice daily for 7 days. On 4th day, he reported to us with the peculiar complaints of "flying of brain" from the head. On repeated questioning, he stated that he had developed this unusual complaint after consuming 6 tablets of norfloxacin. On examination, he was mentally alert without any abnormal behaviour and CNS abnormality.

His past history and family history for any psychiatric ailment/mental illness was unremarkable. Neither he was taking any kind of medication(s) with norfloxacin nor he had any drugs in the past 1-2 months. The possibility of norfloxacin induced

hallucination was kept and he was asked to stop the drug, hallucination disappeared completely and he became normal.

DISCUSSION

Norfloxacin, commonly prescribed antibiotic belongs to 4-fluoroquinolones groups. It is a potent bactericidal agent against E. coli, Salmonella, Shigella, Enterobacter, Campylobacter and Neisseria organisms¹. Fluoroquinolones are mainly used for the treatment of urinary tract infection, gastroenteritis and gonorrhoea². Although well tolerated, yet they cause adverse effects most commonly involving GIT, CNS and the skin, the overall incidence being 2-8%. The major CNS adverse effects include headache and dizziness³ as well as neuropsychiatric manifestations in the form of hallucinations, delirium and seizures^{1,4,5,6}. Hallucinations with the use of norfloxacin have been reported in less than 1% of the patients⁷. Norfloxacin is the least absorbed among the fluoroquinolones and has low serum and CSF concentration^{1,2}. Even then it can cause adverse CNS effects and has been reported to cause headache (3%) and dizziness (2%)^{3,7}. PV Ratoboli et al⁸ highlighted the occurrence of unusual hallucinations in a young female patient with no history of mental disorder after exposed to norfloxacin for gastroenteritis.

CONCLUSION

The presentation of this rare case report is to make the medical fraternity aware of the occurrence of neuropsychiatric symptoms with the use of norfloxacin and other fluoroquinolones. Caution should be exercised while using these drugs in patients with history of neuropsychiatric complaints.

RECOMMENDED READING

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