

Infliximab Induced Psychosis in a Crohn's Disease Adolescent Patient: Case Report.

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Abstract—Infliximab has been used successfully to treat inflammatory bowel diseases (IBD). It has well-established efficacy. Side effects of this treatment include infection and malignancy. At present, psychosis is not listed in the summary of product characteristics. We report a case of a 14 year's old female patient with Crohn's disease who was presented to emergency department with acute psychotic symptoms 2 days following her first Infliximab infusion. Infliximab was discontinued and treatment with antipsychotic therapy was initiated. The sudden onset of the symptoms, their response to the discontinuation of infliximab and antipsychotic therapy and the complete recovery of the patient support the diagnosis of infliximab-induced psychosis. Internists should be aware of this rare complication when administering infliximab for various medical illnesses. In addition, management with an atypical antipsychotic is preferred if infliximab induced psychosis has been suggested. However more studies are required to confirm this recommendation.

Index Terms— Crohn's disease, Gastroenterology, IBD, Infliximab, Psychiatry, Psychosis, Side effects,

1 INTRODUCTION

CROHN'S disease is a chronic inflammatory disease mainly affecting the gastrointestinal tract. Infliximab a chimeric monoclonal antibody that inhibits tumor necrosis factor alpha (TNF- α), has been used successfully to treat Inflammatory bowel disease (IBD) and has well-established efficacy [1]. Side effects of this treatment are related to immunosuppression and include higher risk of infections and malignancy [2]. At present, psychosis is not listed in the summary of product characteristics. This report highlights a case of an adolescent female with Crohn's disease who developed acute psychotic symptoms during Infliximab therapy. □

2 CASE HISTORY

A 14-year-old Saudi girl with a recent diagnosis of Ileocecal Crohn's disease and was started on Corticosteroid 40 mg per oral (PO) once daily (OD) and two weeks later Infliximab therapy was added on her medications. The patient was presented to our emergency department with history of behavioral disturbance two days following her first Infliximab infusion; in the form of irritability, hyperactivity, talkativeness, lack of sleep, and physical aggression. The family also gave history of self-talking and disorganized behavior in the form of painting her face. On mental state examination, the patient was shouting and restless, she showed increased psychomotor activity with hallucinatory behavior, and persecutory and grandiosity delusion. There was no personal or family history of psychiatric disorders. There were no reports of recreational drug or alcohol use. No other health problems were reported apart from Crohn's disease. She had no history of fever, neck stiffness, nausea or vomiting. Findings of her laboratory examinations including complete blood cell count with differentials, comprehensive metabolic profile, and thyroid function, liver function, and kidney function tests, were within normal

limits. She was admitted and the diagnosis of acute psychotic disorder was made. Treatment with Haloperidol (5mg IM) was started but she developed severe extrapyramidal side effects,

therefore she was shifted to Olanzapine 5 mg OD and the dose was titrated gradually to 20 mg.

She was also kept on Valproic acid 1000 mg per day. Corticosteroid treatment was discontinued for more than two weeks with no improvement of symptoms; therefore a diagnosis of Infliximab induced psychosis was made. After eight weeks of the prescribed treatment, patient's symptoms have been improved. She returned to her baseline mental status and discharged home. Patient continued to follow up in our outpatient clinic and her medications started to be tapered down after few months of her discharge. Currently she is free of psychotropic medication for more than 3 months without relapse. For Crohn's disease treatment currently she is on Mesalamine 1000 mg PO twice daily.

3 DISCUSSION

TNF- α is well known pro-inflammatory cytokine that plays a major role in the pathogenesis of certain inflammatory diseases in dermatology, rheumatology, and gastroenterology [3]. The mechanism in which Infliximab may lead to a psychotic episode is still not clear. It could be due to reduction in endogenous TNF α that may impact adversely on specific areas of the brain in which a critical level of TNF α is necessary for neuroprotection leading to development of neuropsychiatric adverse effects including psychosis [4]. Although the temporal relationship between the start of Infliximab therapy and onset of symptoms could be coincidental, it seems highly suggestive of a possible causal link considering other aspects of this case. In our patient's case at the beginning, we suspected corticosteroids as a possible trigger for patient psychosis as it is a well-known drug that may induce psychiatric symptoms [5]. However, corticosteroids induced psychosis has been reported to be resolved commonly within 2 weeks after with-

holding the drug [6]. But it is possible that the Infliximab has triggered and prolonged the corticosteroid-induced psychotic symptoms. In addition, we excluded alcohol and substance misuse and there was no personal or family history of psychiatric illness. No organic pathology was identified and in particular toxic confusional state was excluded. A diagnosis of Infliximab-induced psychosis was made considering the temporal relationship with Infliximab exposure, exclude of other possible causes of psychosis, normal laboratory changes, and no clinical deterioration. To our knowledge, there are a few case reports, which reported psychiatric side effects of Infliximab, most of them were in adult age group and the complaint was mainly suicidal thoughts [7],[8],[9]. Psychosis was reported with anti-TNF medication other than Infliximab like Etanercept in elderly patient with rheumatological disease [9]. We found only one case that reporting acute psychosis in adolescent with Crohn's disease after infliximab therapy [10]. This case in addition to our case report both were treated successfully with Olanzapine and their conditions worsened with Haloperidol. In the cases mentioned above, the symptoms resolved after discontinuation of anti-TNF.

4 CONCLUSION

Internists should be aware of this rare complication when administering Infliximab for various medical illnesses. In addition, Infliximab induced psychosis has been suggested; management with an atypical antipsychotic is preferred over the typical antipsychotics. However, more studies are required to confirm this recommendation.

ACKNOWLEDGMENT

NO ACKNOWLEDGMENTS

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