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Case Report

Sulfasalazine-Induced Major Depressive Disorder with Psychotic Features

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Abstract

Sulfasalazine is an antirheumatic drug used in the treatment of AS and rarely causes serious psychiatric problems such as mania, depression and psychosis. This present case reports a male patient who presented due to major depressive disorder with psychotic features. He had been receiving 1000 mg/day sulfasalazine for AS while he developed serious psychiatric symptoms. The patient was stopped being given sulfasalazine after consulting rheumatology, as it was suspected sulfasalazine might have been the cause of his psychiatric symptoms. Complaints were fully resolved 4 months after the beginning of the 1 year psychiatric treatment. When the cases in the literature are taken into account, it is necessary to be aware of the possible psychiatric side effects of sulfasalazine.

ABBREVIATIONS

AS: Ankylosing Spondylitis; 5-ASA: 5-Aminosalicylic Acid

INTRODUCTION

Ankylosing spondylitis (AS) is a chronic inflammatory disease of unknown cause and affects mainly the spine, but can also affect other joints. AS is the prototype of spondyloarthropathies that affects approximately 0.49 % of the Turkey and 0.9 % of the world population [1]. Non-steroid anti-inflammatory drugs are the primary treatment of choice. Sulfasalazine is a disease-modifying antirheumatic drug used in the treatment of AS. Sulfasalazine is especially preferred for AS patients with peripheral joint involvement [2]. Although the exact mechanism of the antirheumatic effect of SLZ is not known, it may occur due to immunosuppressive effect and impaired follic acid absorption [3].

Sulfasalazine may cause central nervous system adverse effects such as serious psychiatric problems including mania and psychosis, these symptoms have been reported to occur only infrequently. The present case study reports a male patient who was admitted due to major depressive disorder with psychotic features. He had been receiving 1000 mg/day sulfasalazine for AS he developed serious psychiatric symptoms.

CASE PRESENTATION

The patient was a 46-year-old male, married with two children, guard, with education level of high school. The patient was admitted to our psychiatry polyclinic due to psychiatric symptoms such as depressed mood, disturbed sleep and appetite, severe anxiety, thinking he was being followed. His psychiatric examination revealed that he was wide-awake and that his orientation and cooperation were good, though he spoke much slower than he was used to. His affect was depressed. He had delusions of perspective and reference.

The patient's medical history showed that he had been diagnosed as having AS. He had been prescribed 500 mg/day sulfasalazine and treatment was increased to 1000 mg/day. After he was prescribed sulfasalazine, his depressive symptoms increased in 2 months. The patient had not had any mood disorder upon births of his children. The patient had never experienced any psychiatric disorder before his psychiatric complaints arose. Also, no family history of psychiatric disorders was found. He had not experienced medical conditions that might have caused psychiatric disorders. He had not used any steroids. Other systemic diseases, which could be related to psychiatric problems such as lupus, had been ruled out before the diagnosis of AS was performed. He had visited our outpatient clinic 3 months after the onset of sulfasalazine treatment with his severe psychiatric symptoms such as depressive mood, delusions of persecutive and reference. After psychiatric symptoms, we consulted rheumatology about whether any changes should be made on the treatment since the symptoms may have been due to sulfasalazine. They stopped the medicine and continued without the medicine for a while. We started an outpatient treatment by prescribing sertraline 50 mg/day and olanzapine 10 mg/day,

and asked him to come to our clinic in 10 days for follow up. On follow up examination we confirmed that he had started using the drugs he was prescribed. His psychotic symptoms had been disappeared and depressive symptoms diminished significantly in 1 month. Complaints were fully resolved 4 months after the beginning of the 1 year psychiatric treatment.

All laboratory tests, electroencephalogram and brain computed tomography performed at the admission were normal. It was concluded that sulfasalazine the patient was receiving, could be responsible for the psychiatric symptoms, since they disappeared upon the discontinuation of these drugs. He was followed with the diagnosis of 'substance induced depressive disorder' according to DSM 5 [4]. He was visited monthly during the follow-up period. It has been a year since he was diagnosed from our outpatient clinic and he has exhibited no psychiatric symptoms so far.

DISCUSSION

Sulfasalazine is composed of sulphapyridine linked to 5-aminosalicylic acid (5-ASA) by an azo-band [5]. Whilst the mechanism of the effect of sulfasalazine remains obscure, some studies have reported this drug to affect cell activity by changing folate metabolism [6]. 5-ASA provides the anti-inflammatory properties of the drug. No death or late adverse effects have been reported for this drug when used as an antirheumatoid agent. Although adverse reactions are seen mostly during the first 2 to 3 months, the unwanted effects may arise any time during the treatment [7]. Psychiatric adverse effects in our present case appeared about 2 months and progressed to severe level 3 months after the start of sulfasalazine treatment.

Three psychiatric disorders triggered by sulfasalazine have been reported in the literature. In the first of the cases, it was reported that depressive disorder developed in the patient who was treated with sulfasalazine because of ulcerative colitis [8]. In the second case, a psychosis clinic was reported to develop a low dose and short duration sulfasalazine for psoriatic arthritis [9]. In the last case, serious manic and psychotic symptoms were presented after adding sulfasalazine to the patient who is using chloroquine because of rheumatoid arthritis [10]. In accordance with the cases in the literature, depressive and psychotic symptoms started after the initiation of sulfasalazine treatment for AS in the present case.

CONCLUSIONS

After the patient started taking antipsychotic drugs, a rapid disappearance of severe psychiatric symptoms led us to conclude that this improvement might not be simply related to use of antipsychotic drugs upon the discontinuation of sulfasalazine. Also, neither the patient nor his family members had a history of psychiatric disorder. For these reasons, we considered a correlation between this interesting occasion and the anti-rheumatic drug he used. With this in mind, we browsed through the literature and found three psychiatric cases in association with sulfasalazine.

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