INTRODUCTION

Corticosteroids have been widely prescribed for a variety of medical conditions, including asthma, rheumatic illnesses, transplant rejection, and dermatological disorders (1). They are routinely used for treatment of Behçet’s Disease, which is an autoimmune disorder. In corticosteroid treatment, however, psychiatric side effects may occur, as well as systemic side effects like osteoporosis, glaucoma, and cataract (2). The psychiatric side effects of corticosteroid treatment range from insomnia to mood disorders and dementia (3). In addition, corticosteroid withdrawal syndrome occurs with a reduction in dosage after a prolonged and high-dose treatment or abrupt discontinuation (4). Although steroid-induced mania is well known, less is understood about steroid withdrawal-induced mania. Here, we provide the first report of a manic episode that appeared after abrupt termination of corticosteroid treatment in a patient with Behçet’s Disease.

CASE

Mrs. A, a 24-year-old female, was brought to the emergency department by her family with complaints of excessive and rapid speech, hyperactivity, decreased need for sleep, agitation, and irritability that had lasted for 10 days. It was learned that she had a history of Behçet’s Disease and had been treated with 1.5 mg/ day of colchicine...
for 7 months. Oral prednisolone (60 mg/day) was added to her treatment by an ophthalmologist 1 month ago in order to treat uveitis. It was learned that after 10 days of treatment, the prednisolone dose was reduced to 30 mg/day; it was then abruptly discontinued on the 10th day. Manic symptoms observed 1 day after discontinuing prednisolone treatment.

On mental status examination, we observed irritable affect, elevated mood, grandiosity, excessive and rapid speech, and increased appetite and libido. There were no perceptual disturbances, delusions, or obsessions. The Young Mania Scale score was 35/60. There was not any past or family history of a psychiatric disorder. The patient’s neurological examination, cranial magnetic resonance imaging, electroencephalogram, and laboratory workups were in normal ranges. She was diagnosed with a manic episode without psychotic features according to DSM-IV. On control examination 2 months later, the patient’s symptoms had decreased (Young Mania Scale score was 5/60). On the day of olanzapine, in addition to psychiatric treatment, colchicine treatment was continued with the medical advice of a dermatologist. After 3 weeks, the patient’s manic symptoms had decreased (Young Mania Scale score was 5/60). On control examination 2 months later, the patient’s psychiatric examination was normal, and so olanzapine was stopped in the third month while lithium was discontinued (which might change CYP-3A4 activity), and female sex. The available evidence suggests that manic and mixed symptoms caused by corticosteroid treatment respond to a corticosteroid taper, but appropriate tapering should be based on total dosage, corticosteroid type, and therapy duration (7,8).

Although the pathophysiological mechanism by which corticosteroids cause psychiatric side effects is unclear, it is considered that mechanism is related with cholinergic and dopaminergic stimulation. Corticosteroids change ion efflux and serotonin release by causing dysfunction of membrane Na-K pump (3). It has been suggested that the administration of prednisone is associated with decreased corticotrophin, norepinephrine, and beta-endorphin in the cerebrospinal fluid. Moreover, corticosteroids induce an increased release of glutamate (9). We think that the possible mechanism of mania associated with corticosteroid withdrawal may be related to a change in the levels of these neurotransmitters. Risk factors for corticosteroid-induced psychiatric disorders are unknown and are not yet predictable. The corticosteroid dosage is the most important risk factor for the development of psychiatric disorders (8). The other risk factors are female sex, cytochrome P450 function, hypoalbuminemia, blood-brain barrier damage, older age, previous psychiatric reaction to corticosteroids and previous primary psychiatric disorder (10). In this case, the risk factors included a high dose of corticosteroids (a prednisolone dosage of 60 mg/day indicates medium risk), concomitant colchicine treatment (which might change CYP-3A4 activity), and female sex. Psychiatric symptoms associated with steroid treatment can appear after days or weeks, or even after termination of treatment (3). In our case, rapid onset of mania was observed after the discontinuation of steroid use. Although the patient used colchicine for seven months, the symptoms of mania started with the discontinuation of steroid treatment.

The available evidence suggests that manic and mixed symptoms caused by corticosteroid treatment respond to 2.5-20 mg/day of olanzapine at a rate of 92% (1). Additionally, it is stated that lithium may be useful in treatment of corticosteroid-induced mood disorders including mania (11). Furthermore, it has been reported that mood stabilizers with olanzapine augmentation are more effective than mood stabilizers monotherapy (12). In this case, lithium and olanzapine were successful in treating acute mania induced by corticosteroid withdrawal.

We should keep in mind that corticosteroids can cause psychiatric side effects in addition to systemic ones.
Psychiatric symptoms can also appear in withdrawal syndromes. As reported in our case, rapid termination of corticosteroid treatment may induce manic episodes in patients with Behçet’s Disease. If clinicians recognize this association, corticosteroid withdrawal-induced psychiatric disorders, including mania, may be prevented.

References:


