

Case Report

A rare case report of oral prednisolone dependence in a middle aged man

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ABSTRACT

Dependence is an uncommon, but potentially sinister complication of corticosteroid therapy. prednisolone was the most frequently implicated corticosteroid in steroid dependence. Here we report a rare case of oral prednisolone dependence in middle aged man who had chronic asthma.

Keywords: Prednisolone, Steroid dependence, Steroid abuse

INTRODUCTION

Dependence is an uncommon, but potentially sinister complication of corticosteroid therapy.¹ Prednisone was the most frequently implicated corticosteroid.² There are case reports involving ACTH, cortisone, and high-dose inhaled dexamethasone and beclomethasone which have been reported in literature. Asthma was the most common underlying medical condition for which the corticosteroids are being prescribed. Corticosteroids may induce dependence based on their inherent property to induce euphoric state as well as a characteristic withdrawal syndrome.³ Also, it has been found that steroids directly influence reward circuitry.

Clinicians should be aware of the possibility of prednisone dependence when confronted with patients who exhibit forceful insistence on corticosteroids out of proportion to objective signs and symptoms of inflammation. Here we report a rare case of oral prednisolone dependence in a young adult who had chronic asthma.

CASE REPORT

A 52 year old male, who is married and who is a father of two children started having symptoms of asthma for the last 8 years. He had symptoms in the form of recurrent episodes of breathlessness with wheeze which worsened during cold and winter season. He used to suffer monthly attacks of severe wheeze frequently requiring hospital admissions. Otherwise, he did not have any other medical problems like cardiac, diabetes or hypertension. He was prescribed prednisolone 5 mg by a chest physician. When he started taking the tablet, he found his respiratory symptoms decreasing, his stamina during physical exertion increased, his mood improved and stress tolerance became better. He was taking 5 mg for initial 3 years; He was procuring the drugs over the counter and subsequently he increased the dose to 10 mg. He developed pain in both knees and diagnosed as osteoarthritis. Over years, he developed steroid induced glucose intolerance and became cushingoid. Subsequently, he moved to another city where he was unable to get tablets over the counter for 3 days period. He had complaints of sleep disturbance, irritability,

dysphoria, and subjective sense of breathing difficulty. He came to consult chest physician from there he was referred to psychiatry department for discontinuing steroid medication.

Patient was admitted and started on oral antidepressant escitalopram 10 mg for his dysphoric mood along with topiramate 50 mg and clonazepam 0.5 mg twice a day for 3 days. Patient improved in terms of mood, sleep and also, he felt there was less craving for steroid medication, but he was not confident of maintaining abstinence outside protected environment. Patient was motivated and reassured of withdrawal symptoms, but he was not confident but he was maintaining abstinence in follow up after one week, he was feeling uncomfortable without steroids but able to motivate himself for health reason.

DISCUSSION

Steroids are one of the most commonly prescribed medications for medical purposes. Many clinical conditions require oral steroids to be used for a longer period. Although steroid use has been associated with many known and frequently encountered side effects like diabetes, hypertension and cataract. Steroid dependence is a relatively rare entity which needs to be further elucidated.

Our patient fulfilled the Diagnostic and statistical manual (DSM V criteria) for drug dependence. Drug dependence with anabolic steroids is becoming a serious medical threat among body builders. Drug dependence with other oral steroids like methyl prednisolone is also described.⁴ Anfinson et al described two cases of prednisolone dependence.² Both patients exhibited tolerance and withdrawal symptoms, and both developed serious systemic effects from the corticosteroids, including cataracts, diabetes mellitus, and cushingoid signs. Both patients also exhibited dependence upon other substances. Prednisolone was the most frequently implicated corticosteroid, but cases involving ACTH, cortisone, and high-dose inhaled dexamethasone and beclomethasone were also identified.

Asthma was the most common underlying medical condition for which the corticosteroids were prescribed.⁵ Corticosteroids may induce dependence based on their propensity to induce euphoria as well as a characteristic withdrawal syndrome, in addition to directly influencing reward circuitry.⁶ Many patients appear to resist discontinuing prednisolone due to depression and other withdrawal symptoms. One potentially helpful approach with these patients may be the use of antidepressants during the withdrawal period. In three literature cases

tricyclic antidepressants (TCAs) appeared to decrease symptoms of depression and facilitate withdrawal of the glucocorticoids.⁷ Clinicians should be aware of the possibility of prednisolone dependence when confronted with patients who exhibit vigorous insistence on corticosteroids out of proportion to objective signs and symptoms of inflammation.

CONCLUSION

Drug dependence with oral steroids is a rare presentation but can have serious psychiatric and social comorbidities. Hence the clinicians should be aware of this particular side effect and should identify such dependence in an early stage for proper referral and appropriate and timely management.

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