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Koro and Psychosis Following Steroid Abuse

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Abstract

Steroid use or abuse is asociated with several psychiatric manifestations both in short term and long term. This case report describes a 24 year old man abusing dexamethasone who developed late onset psychosis and koro. He recovered with cessation of steroid and treatment with olanzapine and lorazepam. This case highlights misconceptions of young persons regarding use of steroids for improving health (German J Psychiatry 2004;7(3):49-50).

Keywords: steroids, psychosis, koro

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Introduction

Steroid abuse is associated with a variety of psychiatric manifestations, most of which appear within few weeks of use and are dose related. Symptoms of hypomania, mania, depression, and psychosis occur during corticosteroid therapy as do cognitive changes, particularly deficits in verbal or declarative memory (Brown & Chandler, 2001). Koro is a culture specific phenomemenon reported mostly from Asian countries, which is characterized by fear of hyperinvolution of penis and resultant death.

Case Report

A 24 year old unmarried male, educated up to tenth grade, was brought with insidious onset of illness of 2 years duration, characterized by suspiciousness that other persons are talking about him and planning to harm him, irritability and occasional anger outbursts, frequent changeability of mood, and disturbances in sleep. These symptoms had a fluctuating course. He also complained that his penis is retracting and becoming smaller day by day. He would check his genitals several times though he denied any attempt at pulling them. On enquiry he admitted to taking dexamethasone tabs (8 mg/day) for past 6 years, which he believed would increase his health and vigour. Mental status examination revealed distractibility, mild hyperactivity, increased speech productivity which could be interrupted easily, irritable affect, emotional lability, nonspecific persecutory and referential ideas. He had fear of retraction of penis and was worried by this thought. He also admitted hearing voices arising from his body parts, which asked him to follow their requests. He had impaired concentration and had difficulty recalling events of recent past. His judgement was impaired and he had partial insight (grade III) regarding his symptoms. Physical examination did not reveal any significant finding. His past, family, birth and developmental history and premorbid personality history was unremarkable.

He was diagnosed having steroid induced koro and psychosis. Dexamethasone was stopped immediately. The patient and his family members were educated regarding the adverse effects of steroid abuse as well as misconceptions regarding positive effects of steroid on health. He was treated with olanzapine 10 mg/day for his psychotic symptoms and lorazepam 2 mg at bedtime for sleep, with which he showed improvement and all symptoms disappeared by 4 weeks.

Discussion

Anabolic steroids have been abused by young men to enhance personal appearance. In our case the patient abused dexamethasone with the mistaken belief that it would improve his muscularity and vigour. Psychiatric manifestations are common with use of steroids in long term. They usually occur within first 3 weeks, and late onset psychosis as in this case is uncommon. Severe psychiatric reactions occur in approximately 5 – 10 % of steroid-treated patients (Lewis & Smith, 1983), especially when given in large dosage. Often the clinical picture is a complex admixture of affective, schizophreniform and organic features with symptoms changing from one moment to other (Hall et al., 1979). Common symptoms include emotional lability, anxiety, distractibility, pressured speech, insomnia, perplexity, agitation, hypomania, auditory and visual hallucinations, delusions, memory impairments and disturbances in body image. Most patients recover within several weeks of the onset of symptoms with steroid discontinuation (Lewis & Smith, 1983). Steroid induced psychosis responds well to antipsychotics medications, both typical (Ingram & Hagemann, 2003) and atypical (DeSilva et al., 2002; Brown et al, 1999), and electroconvulsive therapy (Lewis & Smith, 1983). Our case responded well to olanzapine, which may be preferred over typical antipsychotics when both affective and schizophreniform symptoms are present, as it has shown antimanic properties in addition to antipsychotic effect.

The classic syndrome of koro, occurring in epidemic form in South-Asian countries is culture-bound and is characterized by the triad of beliefs that the penis is shrinking, it will disappear into the abdomen and it will cause death. These beliefs are accompanied by an intense fear and by preventive maneuvers such as tying, clamping or grasping the penis. Sporadic cases are occasionally seen, most are non-classical and incomplete forms of the syndrome. They may be associated with other psychiatric disorders as schizophrenia (Devan & Hong, 1987) and psychotic depression (Westermeyer, 1989). Koro is very rarely reported in association with drug abuse, it has been described with heroin withdrawal (Chowdhury & Bagchi, 1993), alcohol induced systemic disease (Holden, 1987), cannabis (Chowdhury & Bera, 1994; Earleywine, 2001). Ramos & Budman (1998) reported a case in which koro emerged after abrupt cessation of olanzapine. There is no previous report of koro following steroid abuse. Our case is an example of incomplete form of the koro syndrome with less intense anxiety and fear. Koro can be viewed as a cultural expression of psychosis as is evident in our case and previous associations with other psychotic disorder. This case illustrates the consequence of abuse of steroids among young men to enhance body appearance as well as highlights the late onset of psychotic disorder associated with steroid use.

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