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Case Report

A Case of Anabolic-Androgenic Steroid Induced Psychosis

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Abstract

Within the last 2-3 decades, anabolic-androgenic steroids (AAS) have become a major form of substance abuse all over the world, used by individuals to enhance performance or to improve personal appearance. The use and abuse has been linked with a variety of psychiatric manifestations; mood disorders i.e. depressive and manic episodes, psychosis, sleep disturbances as well as suicidal and homicidal ideations. Long term abuse has been associated with dependence syndrome like pattern and symptoms of withdrawal have been noted in attempts of discontinuation.

Generally, individuals with AAS use are seen to have greater impulsivity, inability to delay gratitude as well as higher scores on neuroticism, openness and extroversion.

Research on the relationship between AAS use and their psychiatric complications has been lacking.

Here we present the case of a 26 year old male, who developed depression with suicidal ideation after the first cycle and symptoms of psychosis after the second cycle of AAS use.

Keywords: Anabolic Androgenic Steroids; Methandienone; Psychosis; Depression; Suicide

Case presentation

A 26 years old man, Hindu by religion, unmarried, working as a gym trainer with prior history of depression, alcohol use and nicotine use presented to the outpatient department with complaints of his thoughts being known to others since the last 10 days. He reported that he felt his thoughts were being posted on social media and was spending 8-10 hours per day going through his social media feed to check for the same. Also present were suspiciousness and fearfulness during routine activities like walking on the road, at which time he felt that people around him were getting to know his thoughts and were talking about him.

His caregivers gave an account that over the last 10 days the patient had been more withdrawn and would spend most of his time scrolling through social media on his phone. He would also get irritable easily over trivial issues and would become verbally aggressive towards the family members. His sleep was disturbed over the past week.

Upon further questioning, the patient reported that he had undergone one cycle of the anabolic steroid Methandienone 40 mg/day over the last month. He had stopped consumption of the same since 3 days as his intended course had ended.

The patient had also undergone another cycle of the same AAS 12 months ago. At that time, he suffered an episode of depression with low mood, anhedonia, suicidal ideations and had 2 high intentionality and lethality attempts on life.

On personality assessment, the patient had high scores on extraversion, openness and impulsivity.

On mental status evaluation, the patient seemed anxious, displayed paranoid thought content, had thought withdrawal and delusion of reference. He denied any current suicidal or homicidal thinking and any auditory or visual hallucinations. He was started on Tablet Olanzapine 20 mg and Tablet Risperidone 6 mg in divided doses.

His psychotic and anxiety symptoms reduced significantly by day 5 of admission. Patient has maintained improvement during subsequent follow-ups.

Discussion

High dose usage of AAS has been associated with manifestations of psychiatric complications [1-4]. The diagnosis of AAS induced mood or psychotic disorder is almost treated like one of exclusion. The symptoms must not be better explained by effects of other medication, other drug use, various causes of delirium including infection, electrolyte imbalance or known psychiatric causes. Most Appearance and Performance Enhancing Drugs (APEDs) users are poly-drug users and practice 'stacking', consuming various different drugs from different categories at the same time or in sequence over 8 - 10 week time periods [5]. This, combined with possible concomitant use of other drugs including alcohol, cannabis and stimulants makes it especially challenging to single out AAS as the causal factor in patients.

Here, the temporal relationship between the time of use of AAS and the onset of symptoms points in the favour of the cause being AAS use.

Psychotic symptoms though rarely associated with AAS use, are seen primarily in individuals using the equivalent of more than 1000 mg of testosterone per week [6].

Currently, there are no well established guidelines for management of AAS abuse. Initial physical and behavioral symptoms should be managed first. There exists positive anecdotal evidence regarding use of haloperidol in the treatment of steroid induced agitation. Other drugs that could be considered include atypical antipsychotics and benzodiazepines. SSRIs could be considered first line treatment for depression associated with long term use or discontinuation [7].

Larger studies should be conducted for more conclusive evidence regarding various psychiatric manifestations and their treatments for individuals with AAS abuse.

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