# **ABUSE OF STEROID PRESCRIPTION- A CASE REPORT**

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## INTRODUCTION

Corticosteroids are widely used and highly effective in treatment for number of conditions like immunological condition inflammation, systemic lupus erythematosus, chronic obstructive pulmonary disease, cancer and chronic pain conditions. Steroid-induced psychiatric disturbances appear in 3 to 6% of patient on treatment. Glucocorticoid is one of the most cause of avascular necrosis, affects hip joint, and other joints.<sup>1,2</sup>

Doctor consider the potential benefits and risks to each patient before prescribing medication and take into account a lot of different factors in place, when they are misused, there can be dangerous health hazards.<sup>3</sup>

Corticosteroid-induced symptoms are mood disorder, anxiety, depressive disorder, delirium, suicidal thinking, agitation and cognitive impairment.<sup>4</sup>

#### PRESENTATION OF THE CASE

A female aged 55 yrs. presenting with hip joint pain since one year and fearfulness, low mood and disturbed sleep since 6 months.

Pain in hip joint and knee joint following chikungunya fever, treated for the same. After two weeks, pain persisted, hence, she took Tab. Prednisolone 20 mg with aceclofenac 100 mg two to three times a week without consultation to get rid of the pain. Following this, she developed difficulty in squatting position and to walk a distance. She continued taking tablets. It would give relief during daytime to do her daily activities.

Low pervasive sad mood, not able to interact with the family members, crying spells, not interested to carry out her routine, irritable to loud sounds, since 3 months.

Fearfulness to go out and she report someone is plotting against her to harm, evil spirit is following her everywhere, hence wanted someone to be with her throughout.

Disturbed sleep, initial insomnia and late insomnia, since 1 month and restlessness, wanted to run away from home to find peace.

Past history, postpartum period single episode of seizure and taken medication and family member report no further episode and no similar complaints in the past.

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General Physical Examination- vitals stable, waddling gait and tenderness in hip joint.

Systemic Examination - No systemic abnormalities.

Mental Status Examination- Moderately kempt, ungroomed, restless, frequently getting up from chair during interview, omega sign, eye to eye contact intermittently maintained. Rapport established with difficulty. Social etiquette not observed.

Psychomotor Activity- Increased speech; relevant, coherent volume, rate, tone normal.

Thought Examination- Delusion of persecution, ideas of reference, depressive cognition in the form of helplessness and death wishes.

Mood- Dysphoric affect, Perception- Second person auditory hallucination.

Sensorium and Cognition- attention arousable; illsustained concentration; immediate, recent and remote memory intact, insight- absent, grade- 0, judgementimpaired, socio-occupational drives- decreased, appetite and sleep- initial insomnia and middle insomnia.

### **DIFFERENTIAL DIAGNOSIS**

- Steroid-induced psychotic disorder with avascular necrosis of both hip joint.
- Mental and behavioural disorder due to abuse of steroid F.55.3.
- Mental and behavioural disorder due to abuse of nonpsychoactive substance.
- Severe depression with psychotic symptoms.

#### **CLINICAL DIAGNOSIS**

Mental and behavioural disorder due to other psychoactive substance abuse with avascular necrosis hip joint.

CBC	Report	
Haemoglobin	12.4 gm%	
Total leukocyte count	8400 cell/cmm	
Platelet count	1,70,000 cell/cmm	
Serum calcium level	9.4 gm%	
Serum B12 level	450 pgm	
Table 1. Investigation		

Liver Function Test- Normal. Renal Function Test- Normal. Serum Electrolytes- Within normal limits. CT Brain - Normal study. EEG - No epileptic form waves. Urine - Albumin plus.



X-Ray- Avascular Necrosis of Both Hip Joints

Hamilton Depression Rating Scale- 27 (severe). Scale for Assessment of Positive Symptoms (SAPS)- High score 40.

### **Treatment-**

- Tab. Prednisolone 20 mg tapered and stopped, Tab. Mirtazapine 7.5 mg started for a week, then increased to 15 mg for another three weeks.
- Tab. Risperidone 2 mg BD, Tab. Shelcal 500 mg OD.<sup>5</sup>
- Inj. Vitamin B12 1500 mcg daily for week.
- Supportive psychotherapy.
- Response- Two weeks later, 50% improvement in symptoms in following month resumed social activities, hence started on maintenance dose, family members psycho educated.
- During followup, psychotic symptoms were not observed and, hence Tab. Risperidone tapered and stopped.
- Cross reference done with physician and orthopaedician and symptoms decreased.

# DISCUSSION OF MANAGEMENT

Psychiatric complication of corticosteroid treatment ranges from anxiety, insomnia to severe mood disorder, delirium, psychosis and dementia. Psychiatric disturbances usually occur in the course of steroid therapy.

Female sex, past history, systemic lupus erythematosus and prednisolone dose of more than 40 mg/day long-term use are risk factors for the development of psychiatric disturbance. Hypoalbuminaemia appears to be major risk factor and can predict glucocorticoid-induced psychosis.

Steroid tapering or discontinuation can be a remedy for these adverse effect. Over 50% of cases recovered within two weeks and about 90% within 6 weeks of onset of symptoms. Patient should be informed about the adverse effect associated with corticosteroid use and periodic monitoring is of beneficial.<sup>2</sup>

Secretion of adrenocorticotropic hormone and atrophy of the adrenal glands become progressively increased as doses of corticosteroid exceeds physiological amount, hence corticosteroid doses should be given as a single dose in the morning.<sup>6</sup>

Osteonecrosis develops in 9-40% of the steroid users by increasing the osteoclastic activity followed by decreasing osteoblastic activity. $^7$ 

# CONCLUSION

Corticosteroid is wildly used in modern medicine, but can result in troubling psychiatric side effects. Physicians other medical profession should be aware of the potential for these side effects possible means prevention and efficacious treatment.

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