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Case Report

SEVERE ANXIETY AND CUSHING'S SYNDROME

***A. Ranjan[1], J. Mokta[1], S. Thakur[1], R. Bhawani[1] and K. Mokta[2]**
[1]Department of Medicine, IGMC Shimla, India
[2]Department of Microbiology, IGMC Shimla, India
**Author for Correspondence*

ABSTRACT
The unrecognized widespread use of steroids in various forms is not uncommon in clinical practice with potential to cause side effects. We present a case of longstanding use of injectable steroid and development of Cushing's syndrome.

Keywords: *Anxiety, Cushing's Syndrome, Steroids*

INTRODUCTION
Most common cause of Cushing's syndrome in clinical practice is iatrogenic. Prolonged use of steroids for various chronic disorders has been rampant secondary to which patients develops myriad of side-effects like cushingoid features, osteoporosis, diabetes mellitus, hypertension, adrenal insufficiency, infections. Here we present a case of patient who had been prescribed injection dexamethasone for symptoms related to anxiety and later developed itrogenic Cushing's syndrome.

CASES
A-30-year-old obese man presented in Medicine out-door clinic with intense feeling of having internal cancer in April 2014. Widespread appearance of stretch marks and abnormal weight gain over last two years was the cause of his anxiety. On questioning, he revealed, that a local untrained medical practitioner gave about 300-400 injections of dexamethasone (4mg) over last two years for complaining of severe anxiety (heightened perception of severe fear, feeling of impending doom followed by pulling out his hairs and tearing apart his body clothes and running amok) occurring 3-4 times in a week. Telephonic conversation to the practitioner revealed; for questionable diseases, he commonly used steroid either oral or injection. In the index case, he preferred injection dexamethasone because of severity of symptoms. Six month after the initiation of injection, patient noticed appearance of abnormal stretch mark on his body with abnormal weight gain. On physical examination, he had moon face, buffalo hump and fullness of supraclavicular fossa, proximal muscle weakness both lower limbs (grade3/5) and hypertension (blood pressure 160/100mm Hg). Multiple wide purple striae (48 in number with largest striae 27cm in length and 2cm in width) were present on abdomen, chest, bilateral thighs, axillae and medial aspect of both arms (Figure-1). His complete heamogram, liver and renal function tests, electrolytes, plasma glucose, thyroid function tests were normal as was his X-ray chest and ultra sonogram abdomen. Computed tomography (CT) abdomen and magnetic resonance imaging (MRI) of brain was normal. Dual energy x-ray absorptiometry (DEXA) scan showed osteopenia in spine. His morning (8 a.m.) serum cortisol was 3.5 µgm/dl (normal5-20µgm/dl) and concomitant adrenocrticotrophic (ACTH) hormone (ACTH) was 10pgm/dl (11-60pgm/dl). His 250µgm short synacthin test response was suppressed (serum cortisol rose to 7µgm/dl from base line of 3.5µgm/dl). Presence of suppressed endogenous cortical and corticotrophin level in the presence of Cushingoid features in our patient was highly suggestive of Iatrogenic Cushing's syndrome. His steroid was gradually tapered and was treated with clonazapine and paroxitine. When last seen in October 2014 six month after the discharge from the hospital, he was feeling better, there was improvement in his symptoms and his striae were decreasing.

DISCUSSION
About 1% of general population use long-term glucocorticoids (Fardet *et al.,* 2011). Exogenous use of glucocorticoids is responsible for 99% cases of Cushing's syndrome. However, not all cases of exogenous Cushing's syndrome are due to therapeutic prescription of glucocorticoids. Factitious use of steroids, use

of steroids in alternative remedies (herbal) and prescription of glucocorticoids by local practitioner for uncertain diseases are important, however; unrecognized causes of exogenous Cushing's syndrome (Villanueva *et al.,* 2000; Krapf, 2002; Bachmeyer *et al.,* 2004). Only about two-third of chronic user of steroid develop clinical manifestation of excessive exposure to glucocorticoids (Fardet *et al.,* 2007). The most typical being "Cushingoid adiposity" characterized by less weight gain and more redistribution of fats in the face (moon face), dorsocervical region (buffalo hump) and in abdomen; typical seen in our patient (Schou *et al.,* 2003). Clinical suspicion is the first important step in the diagnosis of exogenous Cushing's syndrome with most striking biochemical abnormality is suppressed morning serum cortisol, especially in the presence of Cushingoid features (Hopkins and Leinung, 2005). Early diagnoses and management of exogenous Cushing's syndrome is imperative, as it is associated with three times more risk of development of coronary artery disease and heart failure (Fardet *et al.,* 2012).

In developing countries, untrained complementary and alternative medicine practitioners constitute important component of health care delivery and prescribe allopathic and even prohibited drugs openly (George and Abraham, 2002). Although systemic steroids should be unavailable without doctor's prescription, however, unwarranted prescription and/ or use of steroids are not uncommon due to the lack of guidelines for over-the-counter availability of steroids and such restriction is difficult to achieve (Hui *et al.,* 2002). Our case highlights; the unregulated use of steroid and exemplify the nefarious effect of steroid use in these countries.

In clinical practice, various forms of glucocorticoids therapy either prescribed or otherwise are extremely common and potential to cause Cushing's syndrome. It is important, therefore, for the physicians to be highly vigilant and suspect early especially in the presence of "Cushingoid adiposity" phenotypically and presence of low serum cortisol level biochemically. The message is clear that the unregulated prescription of steroids and its side effects are much common than generally realized and should be suspected and treated early more often than hitherto; but would be better still to intensify public health awareness about its potential misuse.

Figure 1: Moon Face, Buffalo Hump and Fullness of Supraclavicular Fossa and Multiple Wide Purple Striae Present on Abdomen, Axillae and Medial Aspect of Thighs

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