

# Steroid Induced Psychosis in a 20-Year-Old Girl with Erythema Nodosum Leprosum

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## 1. Introduction

Leprosy or Hansen's disease is a chronic contagious disease caused by aetiological bacteria *Mycobacterium leprae* affecting skin and peripheral nerves[1]. Leprosy reaction is of three types:

- 1) Type 1 reaction (reversal reaction/RR)
- 2) Type 2 reaction (erythema nodosum leprosum/ENL), and
- 3) Lucio's phenomenon[2].

It is managed by anti leprosy medications with corticosteroids, or clofazimine in combination with corticosteroids or clofazimine alone[3]. Steroids are one of the principal drugs used in the treatment of leprotic reactions by inhibiting early and late inflammation[4]. Steroid induced psychiatric adverse effects include mania, psychosis, delirium and mixed mood effects. Here we are presenting a case report who was on corticosteroid (prednisolone 40mg was given as the treatment) developed psychosis.

## 2. Case Report

A twenty-year-old girl 10 months back had the complaints of fluid filled vesicles and blisters over oral, trunk and axillary regions, she was diagnosed to have Erythema nodosum Leprosum and was on steroid treatment which included Prednisolone- 40mg. Other medications included Tab. Pantop- 40mg, Tab. Calcium, Fusidic ointment, Mucopain gel, Betadiene mouth gargles. Patient's personal history (sleep, diet, appetite) was normal. She had no significant history of diabetes, hypertension or asthma. Now at present, patient complained of auditory hallucinations, delusions, suspiciousness, and decreased sleep since one week. Patient was finally diagnosed to Steroid induced Psychosis. Tablet Olanzapine – 500mg, dexorange syrup was given to the patient to relieve the patient. The dose of Prednisolone was reduced to 10mg once daily. Patient was resolving her symptoms gradually after the dose reduction and antipsychotic medications.

## 3. Discussion

Erythema Nodosum Leprosum or type 2 reaction is an immune complex mediated complication of lepromatous leprosy (LL) having a heavy load of bacilli. It causes red firm tender cutaneous and subcutaneous nodules and variable sized plaques appear in crops, fever, and systemic inflammation that may affect the nerves, eyes, joints, testes, and lymph nodes [5]. It is managed by anti-leprotic medications, corticosteroids, clofazimine as combination therapy. In one of the study, steroid induced psychiatric

adverse effects were Among 130 patients, mania was most prevalent (35%), followed by depression (28%), mixed mood episodes (12%), delirium (13%), and psychosis (11%)[6]. Here in our patient who was on treatment with prednisolone -40mg developed psychosis. Immediately, the dose of the steroid was reduced and antipsychotic drugs were given. Her ENL and Psychosis symptoms were resolving gradually.

## References

- [1] Gillis TP. *Mycobacterium leprae*. In *Molecular Medical Microbiology* 2015 Jan 1 (pp. 1655-1668). Academic Press.
- [2] Kar HK, Kumar B. *IAL textbook of Leprosy*. New Delhi: Jaypee Brothers Medical Publishers LTD. 2010.
- [3] Severe EN, Numerous EN. WHO Guidelines for the management of severe erythema nodosum leprosum (ENL) reactions.
- [4] Haynes RC. Adrenocorticotrophic hormone; adrenocortical steroids and their synthetic analogues; inhibitors of adrenocortical steroid biosynthesis. The pharmacological basis of therapeutics. 1975:1472-506.
- [5] Pandhi D, Chhabra N. New insights in the pathogenesis of type 1 and type 2 lepra reaction. *Indian Journal of Dermatology, Venereology, and Leprology*. 2013 Nov 1;79(6):739.
- [6] Sirois F. Steroid psychosis: a review. *General hospital psychiatry*. 2003 Jan 1;25(1):27-33.