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Research Article

PSORIASIS AND PSORIATIC ARTHRITIS DURING LITHIUM THERAPY

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ABSTRACT

Lithium is the mainstay of treatment in bipolar disorder and is associated with a variety of cutaneous side effects including psoriasis, acne form eruptions and folliculitis. Lithium can induce denovo psoriasis or exacerbate pre-existing psoriasis, the later one being most common. We report a case of lithium induced denovo scalp psoriasis and psoriatic arthritis in a patient who was on lithium since 17yr for bipolar affective disorder. Though scalp psoriasis is one of the commonly induced type, psoriatic arthritis due to lithium is very rare and only one case report was published so far.Also, as lithium is one of the commonly prescribed drug in psychiatry, the cutaneous side effects are to be known for psychiatrists and dermatologists.

INTRODUCTION

Lithium is used in psychiatry in the form of lithium carbonate and lithium citrate for treatment and prophylaxis of few psychiatry disorders such as mania and manic depressive disorders [1]. Lithium is known to cause cutaneus side effects like psoriasis vulgaris[1,2],folliculitis and pustular acneiform lesions[3,4].Though there were several reports of lithium induced psoriasis, only one case was reported so far regarding simultaneous occurrence of psoriasis and psoriatic arthritis[5]. Hence we report a case of lithium induced scalp psoriasis and psoriatic arthritis.

CASE REPORT

A37yr old male came to our OPD with complaints of scaly erythematous plaques over the forehead in the form of "corona psoriatica"since 2 months and painful swelling over proximal interphalengeal (PIP) joint of left index finger since 15 days[fig.1&2]. The patient was on lithium carbonate 400mg twice dialy and mirtazapine 45mg bedtime for bipolar affective disorder for past 17years.There was no history of similar scaly leisons before starting the therapy and no family members were suffering with similar complaints. Routine blood investigations were normal. Serum Rheumatoid (RA) factor was negative. C-reactive protein(CRP) was slightly raised. Serum lithium level was 0.9meq/lt. X-ray left hand showed decreased joint space and periaurticular swelling over PIP joint of left index finger, suggestive of dactylitis [fig.3]. As the patient had concomitant psoriatic leisons along with dactylitis and negative RA factor, we came to conclusion of psoriatic arthritis as per The **Cla**ssification criteria for **P**soriatic **Ar**thritis (**CASPAR**) criteria.

Thus a diagnosis of scalp psoriasis and psoriatic arthritis was made. After taking psychiatryconsulatation, he was advised to stop lithium.Olanzapine was started newly and mirtazipine was continued. After stopping medicines, the scalp lesions cleared with in 1 month on using topical halobetasol propionate cream. When the drug was further challenged to the patient, again the scalp leisons and joint swelling started appearing with in 1month after starting therapy. From this we came to conclusion that the disease was because of lithiumand completely stopped the offending drug. A one year follow up of the case showed no similar leisons on other parts of the body. Pain and tenderness decreased over the joint but swelling persisted to a minimal extent.

DISCUSSION

Lithium is used in psychiatry in the form of lithium carbonate and lithium citrate for treatment and prophylaxis of few psychiatry disorders such as mania and manic depressive disorders [4].Although utilization of lithium is not as widespread as in the past, it is commonly prescribed.

Lithium is an alkali metal and a monovalent cation with a half-life of 24hr, which is excreted unchanged through kidneys. The normal therapeutic blood plasma levels of lithium are 0.5 to 1.5 meq/lt. Lithium causes several cutaneous side effects, among which psoriasis, maculopapular eruptions and acne form eruptions are more common. Psoriasi form eruptions are the most common cutaneous side effects, reported to occur in 3.4 to 45 percent of patients treated with lithium [7]. Though lithium induced psoriasis is common, acne, hidradenitis suppurativa and psoriatic arthritis,occurring during lithium therapy are very rare[5,6].

The first association of lithium with psoriasis was reported in 1972, and since then there have been several reports of lithium-induced psoriasis described in individuals with no personal or family history.[10,11] Lithium can induce psoriasis denovo and also can exacerbate pre-

existing psoriasis[1,9]. Exacerbation of pre-existing psoriasis is common [1]. The inhibition of the intracellular release of calcium appears to be the mechanism in which lithium provokes the development of a psoriasis form eruption[12]. The refractory period for the development of psoriatic lesions is variable and generally longer in induction and shorter in exacerbation of psoriasis[11].In our case denovo psoriasis occurred as the patient doesn't have any lesions suggestive of psoriasis before starting lithium. The refractory period in our case is more than 15years.

Lithium-provoked psoriasis has been reported to occur at varying therapeutic levels and is not believed to be dose related. It is advised that not all patients with psoriasis will have a flare-up with the initiation of lithium therapy, and psoriasis is not considered a contraindication to lithium use.

Lithium-induced psoriasis is often resistant to conventional treatment modalities, and some cases may require dose reduction or discontinuation of lithium treatment. In our case also, we had to stop the drug completely for resolution of skin lesions. Some lesions reappeared even six months after discontinuing the drug, as seen in the case of lithium induced acneiform eruptions and hidradinitis suppurativa as published by aitheland appaiah [6].

Psoriatic arthritis occurs during lithium therapy was very rare and only one case was reported in literature byskerritt[5].We concluded as scalp psoriasis and psoriatic arthritis occurring after initiation of lithium therapy based on caspar criteria[8] and reoccurrence of lesions on drug challenge.

Drugs that are considered to have a strongpotential risk factor for psoriasis development should be avoided after weighing the risk and benefits of the agent.Fortunately, there are only a few drugs that demonstrate a well-documented, direct, causal relationship with the development of psoriasis or psoriasiform eruptions, and alternative therapeutic options are frequently available.

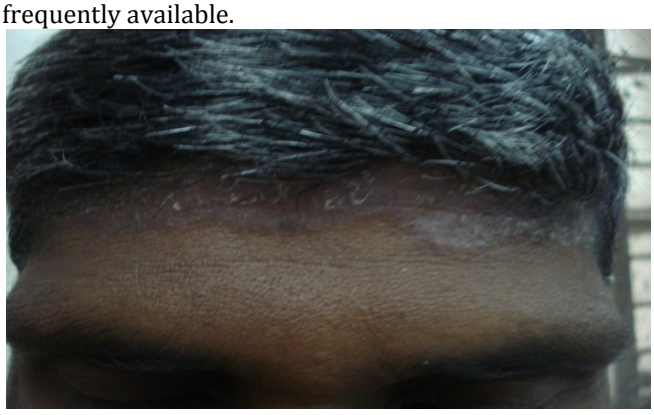

Figure 1 Scalp Psoriasis

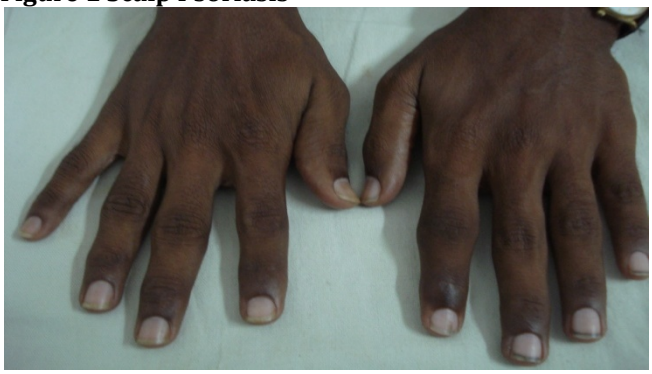

Figure 2. Left Index Finger Swelling.

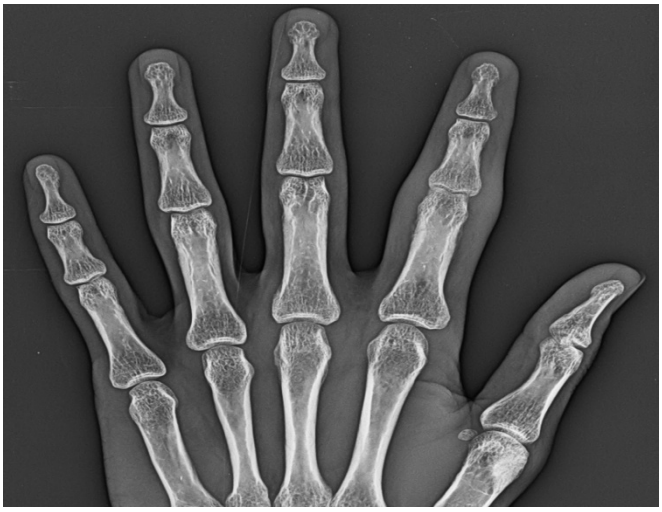

Figure 3. Dactylitis

Figure 4 Lesions cleared after topical clobetasol

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