

Psoriasis and Schizophrenia: An Interesting Association

N. A. Bishurul Hafi¹ · N.A. Uvais²

¹Department of Dermatology, Iqraa International Hospital and Research Centre, Calicut, India

²Department of Psychiatry, Iqraa International Hospital and Research Centre, Calicut, India

Keywords: Psoriasis, schizophrenia

Dear Editor,

Among all psycho-dermatologic associations, one of the most discussed topic is the striking relation between psoriasis and schizophrenia. There are multiple controlled trials as well as meta-analyses on this subject and interesting theories have been developed. We are trying to compile and concise the available information and to present it in a structured way for better understanding, through this letter.

Relation in etiopathogenesis

Multiple theories have been put forward. Most accepted hypothesis is the association with common cells (Th-17) and mediators (TNF-alpha, IL-2) in both the conditions (1,2). Role of Th-17 cells in initiation and progression of

schizophrenia have been suggested by multiple studies. Mild encephalitis hypothesis also support the role of inflammation and pro-inflammatory cells in the pathogenesis of schizophrenia (3). In genomic analysis, a locus for schizophrenia has been recently discovered on 6p region, near to the loci for psoriasis (PSOR₁) (4). These loci were overly expressed in major cells in immunity, eg. B cells, which has central role in pathogenesis of psoriasis too. These findings support genetic association of both the disorders. Some researchers have opined association as a result of confounders like substance abuse, which has a higher prevalence among schizophrenic patients but is also an important risk factor for psoriasis.

Corresponding Author: N.A. Bishurul Hafi; Department of Dermatology, Iqraa International Hospital and Research Centre, Calicut, India

E-mail: bishuru@gmail.com

Received: Nov 06, 2018 **Accepted:** Dec 7, 2018

Published: Mar 21, 2019

This is an Open Access Article distributed under the terms of Creative Commons Attribution Non-Commercial License which permits unrestricted non-commercial use, distribution, and reproduction in any area, original work is properly cited.

The Ulutas Medical Journal © 2019



Evidences for the association

In a comprehensive systematic review study of all cohort and case control studies done by Ungprasert et al, they have found a significantly higher prevalence (1.83 fold) of psoriasis among schizophrenic patients (5). But most of the articles they analyzed were retrospective studies using electronic medical records, which are known to have low sensitivity and specificity. Kumar et al observed paranoid schizophrenia in 3.3% of psoriasis patients in a cross sectional study conducted among Indian patients (6). There are multiple case reports and case series showing their co-occurrence and related course of disease.

Effect of treatment of one disease on the other

Typical antipsychotics have beneficial effect on psoriasis as reported by Miyaoka et al. with haloperidol and levomepromazine in two separate patients as well as by Shimamoto et al. with chlorpromazine (7, 8). But on contrary, atypical antipsychotics seems to have harmful effect on psoriasis. In multiple case reports olanzepine dramatically worsened pre-existing psoriasis (9, 10). On the other hand, some drugs used for psoriasis were also reported to affect the course of psychosis. Di Nuzzo et al. reported worsening of psychotic symptoms in a patient with plaque psoriasis and paranoid schizophrenia, few weeks after the initiation of cyclosporine therapy for psoriasis (2). Similarly Kaufman et al reported manic episode in psoriasis patient following administration of TNF-alpha inhibitor, etanercept (11). Both the cases reflect the role of similar chemical mediators in both conditions.

Conclusion

Overlapping nature of chronic dermatological disorders and psychiatric diseases demands careful assessment from the experts of both

sides. Dermatological evaluation of skin rashes in schizophrenic patients is mandatory for early detection and treatment of psoriasis. Since psoriasis itself can affect quality of life significantly, liaison clinic approach will be promising. Knowledge about the relationship in pathogenesis of both the diseases will help the treating doctor to choose drugs wisely so that other disease will not be worsened.

Conflict of Interests

The authors declare that they have no conflict of interest in the letter.

Reference

1. Debnath M, Berk M. Th17 pathway-mediated immunopathogenesis of schizophrenia: mechanisms and implications. *Schizophr Bull* 2014;40:1412–1421.
2. Di Nuzzo S, Zanni M, De Panfilis G. Exacerbation of paranoid schizophrenia in a psoriatic patient after treatment with cyclosporine A, but not with etanercept. *J Drugs Dermatol* 2007;6:1046–1047.
3. Riedmuller R, Muller S. Ethical implications of the mild encephalitis hypothesis of schizophrenia. *Front Psychiatry* 2017;8:38.
4. Yang YW, Lin HC. Increased risk of psoriasis among patients with schizophrenia: a nationwide population-based study. *Br J Dermatol* 2012;166:899–900.
5. Ungprasert P, Wijarnpreecha K, Cheungpasitporn W. Patients with schizophrenia have a higher risk of psoriasis: A systematic review and meta-analysis. *Psychiatry Research* 2018;259:422–426.
6. Kumar V, Mattoo SM, Handa S. Psychiatric morbidity in pemphigus and psoriasis: a comparative study from India. *Asian J Psychiatry* 2013;6:151–156.
7. Miyaoka T, Seno H, Inagaki T, et al. Schizophrenia associated with psoriasis vulgaris: three case reports. *Schizophr Res* 2000;41:383–386.
8. Shimamoto Y, Shimamoto H. Annular pustular psoriasis associated with affective psychosis. *Cutis* 1990;45:439–442.
9. Latini A, Carducci M. Psoriasis during therapy with olanzapine. *Eur J Dermatol* 2003;13:404–405.
10. Ascari-Raccagni A, Baldari U, Rossi E, Alessandrini F. Exacerbation of chronic large plaque psoriasis associated with Olanzapine therapy. *J Eur Acad Dermatol Venereol* 2000;14:315–316.
11. Kaufman KR. Etanercept, anticytokines and mania. *Int Clin Psychopharmacol* 2005;20:239–241.

How to cite?

Hafi B, Uvais NA. Psoriasis and Schizophrenia: An Interesting Association. *Ulutas Med J*. 2019;5(1):95-96.

DOI: [10.5455/umj.20191107033209](https://doi.org/10.5455/umj.20191107033209)