Sodium Valproate–Associated Psoriasis:

A Case Report and Brief Literature Review

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Psoriasis is a prevalent skin condition that requires long-term therapy due to its high prevalence and the significant negative effects it can have on quality of life. Drugs may exacerbate preexisting psoriasis, induce psoriatic lesions on clinically unaffected skin in psoriasis patients, or precipitate the illness in people with a genetic predisposition or no family history of the condition. According to reports, some medications (eg, lithium, tetracycline) might either cause or worsen psoriasis.[1]

Valproate is a broad-spectrum antiepileptic drug, effective against all seizure types.[2] The data on valproate causing induction or aggravation of psoriasis are sparse, and only a few cases have reported this association to date.[1–6] We present a rare case report of exacerbation of psoriasiform eruptions in a patient who was prescribed sodium valproate for seizures as well as an associated brief literature review of cases reporting this association. PubMed was searched on August 12, 2023, with the search terms *valproate* and *psoriasis*,

Figure 1.

Image of Face and Appendages Showing the Psoriatic Rashes Due to Sodium Valproate (A) and Clearance of Rashes After Sodium Valproate Discontinuation (B)

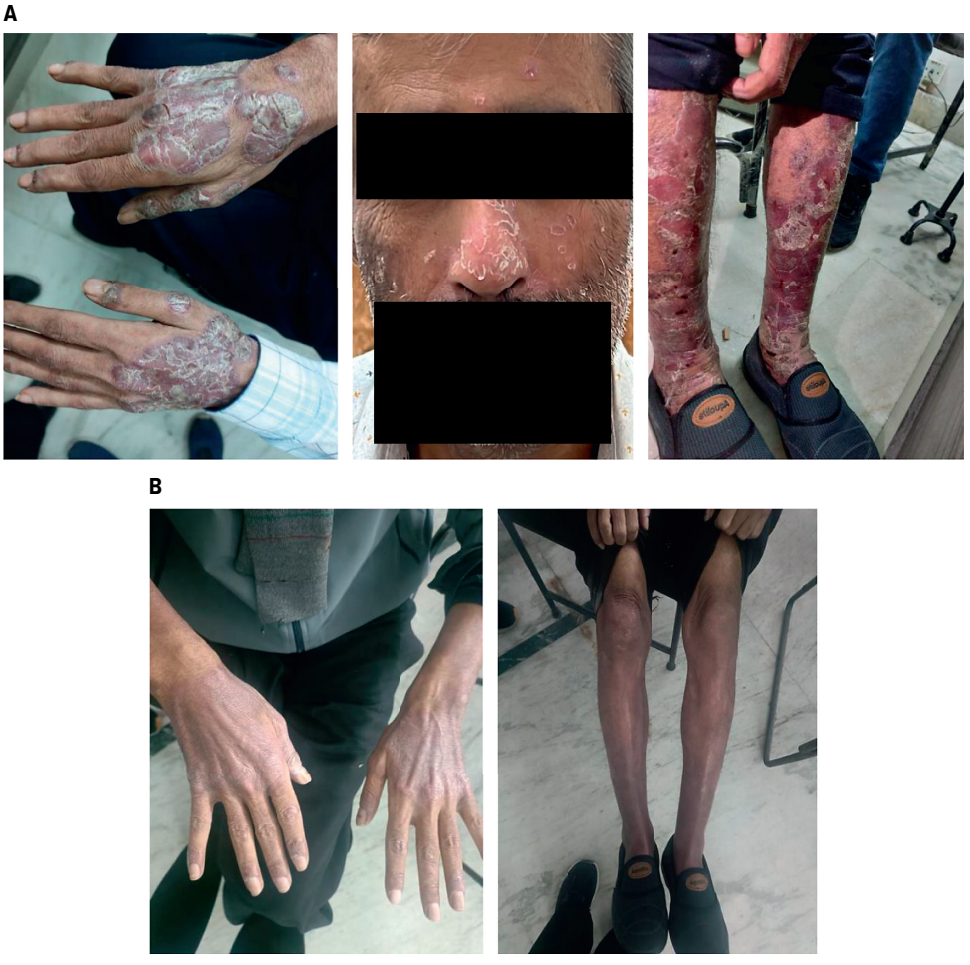

Table 1.
Case Reports of Valproate-Associated Psoriasis

Article	Prior history of psoriasis	Age, y (sex)	Diagnosis	Time to develop valproate-associated rash	Rash site	Valproate dose/duration	Allied psychotropics	Treatment and response
Brenner et al[2]	Yes	25 (female)	Meningoencephalitis (at age 8 y)	Immediately	Intertriginous areas; extension to generalized rash after 22 mo.	NA/2 y	Carbamazepine	Drug discontinuation/ complete resolution in 2 wk.
Roy and Goel[3]	No	14 (male)	TBI and complex partial seizures	4 mo	White scaly scalp lesion (initially) and then multiple discrete, confluent white scaly lesions with raised erythematous margins on the chest, trunk, and limbs.	500 mg/4 mo	None	Drug discontinuation/ complete resolution in 4 mo; at 12 mo, no relapse.
Kwan et al[4]	No	16 (male)	Focal seizures with secondary generalization	12 mo	Started with pruritic scaly skin lesions on his back. Later well-defined, erythematous plaques with silvery scales appeared on hairline, trunk, limbs, and behind ears. Onycholysis and nail pitting were observed.	400–800 mg/variable	None	Drug discontinued, and lesions improved in 9 d except nail pitting and onycholysis.
Gul Mert et al[5]	No	16 (male)	Epilepsy and mental retardation	3 mo	Erythematous white scaly, sharply bordered plaques and papules on back of hands, upper limbs, and posterior trunk.	1 g/3 mo	None	Drug discontinued and lesions improved in 4 wk. No relapse was observed during 1 y following cessation of sodium valproate.
Gómez-Arias and García-Nieto[6]	Psoriasis vulgaris	42 (male)	Bipolar disorder	10 wk	Crusty, adherent plaques with reddish, sharply demarcated borders on the back of both hands.	NA/4 mo	None	Lesions resolved with 2 mo of methotrexate 15 mg/wk, but valproate continued.
Aggarwal et al (2025)	Yes	53 (male)	Psychosis	2 y	Multiple sharply demarcated erythematous indurated scaly plaques of variable size (largest being 5 × 4 cm) present over bilateral limbs and dorsum of hands and scalp.	1 g	Paliperidone 6 mg	The dose was reduced to 250 mg, and lesions cleared up after 5 d. The patient was started on lacosamide 200 mg in a divided dose to control the seizures.

Abbreviations: NA = not available, TBI = traumatic brain injury.

and we reviewed 4 articles that were retrieved as well as 1 additional article on snowballing effect. For qualitative synthesis, we included 5 case reports.

Case Report

The patient was a 53-year-old, married Hindu man educated up to the 12th class, belonging to middle-class socioeconomic status, who presented to the outpatient department with fluctuating complaints of absconding tendency, suspiciousness, decreased social interaction, odd behavior, muttering to self, and disturbed sleep for the past 20 years for which he was on irregular medications, but no medical records were available. For the last 6 years, the patient reported complex partial seizures lasting for 1 to 2 minutes and postictal confusion, vomiting, and no verbal responsiveness for 15–30 minutes. These episodes would

occur erratically, sometimes once a month or once every 6 months.

The patient had a known case of psoriasis for the last 5 years but no family history of psoriasis. He was started on valproate for epilepsy (500 mg/d) 2 years ago and was on irregular follow-up. For the last few weeks, he had developed multiple sharply demarcated erythematous indurated scaly plaques of variable size (largest being 5 × 4 cm) on the bilateral limbs and dorsum of hands and scalp. The scales were silvery white in color, opaque, semiadherent, and not easily detachable. Scraping with a slide (grattage test) was positive. A few plaques did show crusting. Crusts were brown in color, nonfoul smelling, and semiadherent. A total of more than 70% of his body surface area was involved (Figure 1A). Citing nonresponse to methotrexate therapy, sodium valproate was suspected as an exacerbating agent. The daily dose was reduced to 250 mg, and after 5 days, his lesions cleared up substantially (Figure 1B). The patient was started on lacosamide 200 mg in a divided dose to control the seizures. He was continued on paliperidone (6 mg per day) for comorbid psychotic symptoms. The Naranjo Adverse Drug Reaction Probability Scale revealed a score of +5, which indicates probable association.[7]

Discussion

Psoriasis is a chronic skin disorder with a profound impact on patients' quality of life. Certain drugs may induce, trigger, or exacerbate psoriasis. Early recognition and treatment of drug-induced/exacerbated psoriasis result in better management of the primary disorder (per se) and psoriasis itself.

Sodium valproate is scarcely implicated in inducing or exacerbating psoriatic rash, with a total of 5 case reports (Table 1).[2–6] In contrast to our case, patients in 3 cases reportedly had no history of psoriasis.[3–5] All patients received valproate (dose range from 400 to 1 g per day) for epilepsy, except for 1 case[6] in which the patient had bipolar disorder. The valproate-induced occurrence of rash varied from almost immediately to a lag time of 1 year. Lastly, the rash was reported to be resolved within 9 days to 4 months of drug discontinuation (majority of cases) and dose reduction (in 1 case).[6] Most cases reported widespread rash akin to our case report.[2–5]

Sodium valproate's chemical structure, specifically its carboxylic end, bears resemblance to nonsteroidal anti-inflammatory medications and captopril, which are known to trigger psoriasiform skin reactions.[4] Valproic acid may exacerbate psoriasis by acting as a superantigen through the major histocompatibility complex.[4] Since sodium valproate has a half-life of around 15 hours, this may explain why our patient's skin lesions significantly improved within a week after the medicine was stopped.[4] In conclusion, caution must be exercised when prescribing valproate to patients with preexisting psoriasis, as well as with other drugs known to induce psoriasis.

Article Information

Published Online: January 9, 2025.
https://doi.org/10.4088/PCC.24cr03803

Prim Care Companion CNS Disord 2025;27(1):24cr03803
Submitted: July 2, 2024; accepted October 15, 2024.

To Cite: Aggarwal A, Kumari N, Pattojoshi A, et al. Sodium valproate–associated psoriasis: a case report and brief literature review. *Prim Care Companion CNS Disord*. 2025; 27(1):24cr03803.

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Relevant Financial Relationships: None.

Funding/Support: None.

Patient Consent: Informed consent was obtained from the patient to publish the case report, including the photographs. Information has been de-identified to protect anonymity.

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