DOI: 10.7860/JCDR/2025/73586.20599

A Rare Presentation of Keratoderma Blennorrhagicum: Images in Medicine

PANKAJ YADAV[1], VAISHALI KUCHEWAR[2], DEVESH NAGPURE[3], MADHVI JAIN[4]

Keywords: Hyperkeratotic, Reactive arthritis, Reiter's syndrome

Keratoderma Blennorrhagicum (KB) is a rare dermatologic manifestation commonly associated with reactive arthritis, particularly Reiter's syndrome [1]. Reiter's syndrome is an autoimmune disorder that develops in response to an infection, commonly in the intestines, urinary tract, or genital area. It is characterised by a triad of symptoms: arthritis, conjunctivitis, and urethritis. Characterised by hyperkeratotic skin lesions, it poses diagnostic challenges due to its rarity and resemblance to other dermatoses [2,3]. This is a unique case of KB in a 48-year-old male with a history of a recent genitourinary infection.

A 48-year-old male presented with multiple hyperkeratotic lesions that were yellowish with a waxy texture on the lower limbs and lower back for the past three months. The patient also complained of itching and pain, with no discharge from the lesions. He had a known case of Reiter's syndrome for the last 10 years, for which he was taking oral corticosteroids (Tab Prednisolone 10 mg once a day) and Non Steroidal Anti-Inflammatory Drugs (NSAIDs) (Tab Diclofenac 50 mg as needed).

Physical examination revealed thickened, yellowish plaques with underlying erythema. The lesions measured 13×4 cm on both lower limbs and 10×6 cm on both knee joints, were well-demarcated, and some were coalescing into larger areas of hyperkeratosis [Table/Fig-1]. Notably, the patient also exhibited intermittent symptoms of arthritis in the knees and lower back over the past 4-5 days, alongside urethritis for six months. There was no significant family history or co-morbidities like diabetes and hypertension.

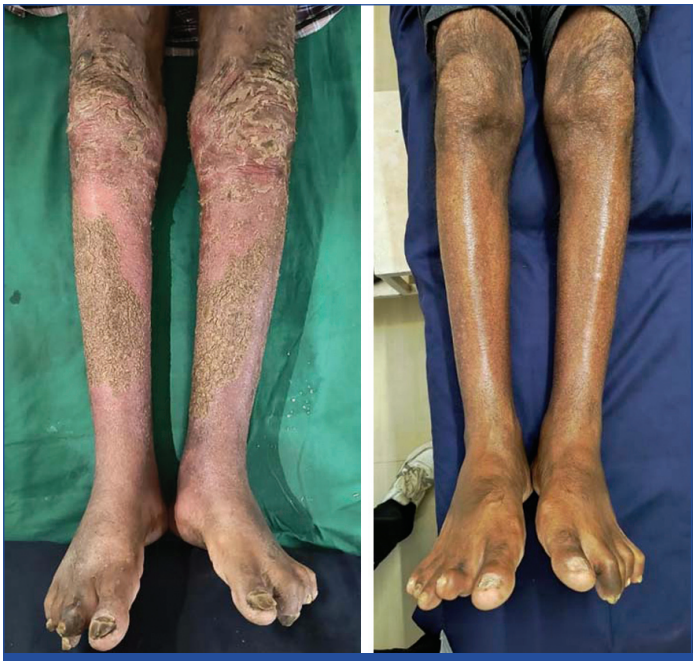
Medicine	Dose	Frequency	Anupana	Duration
Kaishor guggulu	2 tab	Twice a day after a meal	With lukewarm water	For consecutive 30 days
Gandhak Rasayan	1 tab	Thrice a day after a meal	With lukewarm water	
Sarivadyasava	20 mL	Twice a day after a meal	With an equal amount of water	

[Table/Fig-1]: Details of the patient's ayurvedic treatment.

Laboratory investigations showed elevated inflammatory markers, including an Erythrocyte Sedimentation Rate (ESR) of 130 mm/hour and positive C-reactive Protein (CRP), supporting the diagnosis of reactive arthritis, pustular psoriasis, psoriasis vulgaris, lichen amyloidosis, and erythrodermic psoriasis. Based on the clinical presentation, laboratory findings, and the patient's known case of Reiter's disease, the cutaneous lesions were diagnosed as KB.

The clinical image of KB in present patient demonstrates characteristic features: multiple, well-defined hyperkeratotic plaques primarily affecting both lower limbs. The lesions appear yellowish with a waxy texture, and small pustules can be observed within the plaques, indicative of ongoing inflammation. The surrounding skin is erythematous, further highlighting the inflammatory nature of the condition. These lesions are typically symmetrically distributed, and their size can range from a few millimeters to several centimeters in diameter. The patient was treated as described in [Table/Fig-2].

Follow-up and outcomes: The patient was monitored regularly over a three-month period. Significant improvement was noted within one month, with a resolution of the lesions [Table/Fig-3]. By the end of the treatment period, the lesions had completely resolved, and no recurrence was observed. The patient reported overall well-being and was satisfied with the treatment outcome.



[Table/Fig-2]: Shows multiple hyperkeratotic, yellowish waxy texture lesions on both lower limbs and knees before treatment.
[Table/Fig-3]: Demonstrates the healing of bilateral lower limb and knee lesions following therapy. (Images from left to right)

The KB is a crucial dermatologic sign of reactive arthritis. Although the skin lesions are similar in appearance to psoriasis, they have distinct clinical correlations with systemic symptoms such as urethritis, conjunctivitis, and arthritis. Based on the clinical presentation, laboratory findings, and the patient's known case of Reiter's disease, the cutaneous lesions were diagnosed as KB.

The study conducted by Dhakad U et al., discusses a 15-year-old male patient who presented with hyperkeratotic lesions on the palms and soles, along with joint pain [4]. The case underscores the importance of recognising Keratoderma Blisters (KDB) as a manifestation of systemic inflammation. Timely intervention, including antibiotics and anti-inflammatory treatment, led to significant improvement [4]. Another study conducted by Games et al., describes a 26-year-old female patient with KDB associated with reactive arthritis. The patient exhibited hyperkeratotic skin lesions on the soles and palms, characteristic of KDB, alongside joint involvement. Treatment with NSAIDs and Disease-modifying Antirheumatic Drugs (DMARDs) led to significant improvement in both skin and joint symptoms [5]. Management typically includes systemic NSAIDs and DMARDs. Early recognition and appropriate management are essential to address both the cutaneous and systemic manifestations effectively.

REFERENCES

[1] Schempp CM, Schauer F, Huhn CK, Venhoff N, Finzel S. Skin inflammation associated with arthritis, synovitis and enthesitis. Part 2: Rheumatoid arthritis, reactive arthritis, Reiter's syndrome, Lyme borreliosis, dermatomyositis and lupus erythematosus. J Dtsch Dermatol Ges. 2019;17(2):167-81.
[2] Leirisalo-Repo M. Reactive arthritis. Scand J Rheumatol. 2005;34(4):251-59.
[3] Bentaleb I, Abdelghani KB, Rostom S, Amine B, Laatar A, Bahiri R. Reactive arthritis: Update. Curr Clin Microbiol Rep. 2020;7(4):124-32. Doi: 10.1007/s40588-020-00152-6. Epub 2020 Sep 26.
[4] Dhakad U, Das SK, Kumar P. Keratoderma blenorrhagica. BMJ Case Rep. 2013;2013:bcr2012008454. Doi: 10.1136/bcr-2012-008454.
[5] Coelho I, Costa S, Mendes SS, Gomes GC. Keratoderma blennorrhagica. BMJ Case Rep. 2017;2017:bcr2017222475. Doi: 10.1136/bcr-2017-222475.

PARTICULARS OF CONTRIBUTORS:
1. Postgraduate Scholar, Department of Kayachikitsa, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
2. Professor, Department of Kayachikitsa, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
3. Postgraduate Scholar, Department of Shalya Tantra, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
4. Postgraduate Scholar, Department of Panchkarma, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Pankaj Yadav,
Postgraduate Scholar, Department of Kayachikitsa, Datta Meghe Institute of Higher Education and Research, Wardha-442001, Maharashtra, India.
E-mail: py84442@gmail.com

PLAGIARISM CHECKING METHODS: [Jain H et al.]
- Plagiarism X-checker: Jun 15, 2024
- Manual Googling: Sep 23, 2024
- iThenticate Software: Oct 03, 2024 (5%)

ETYMOLOGY: Author Origin

EMENDATIONS: 6

AUTHOR DECLARATION:
- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. Yes

Date of Submission: **Jun 14, 2024**
Date of Peer Review: **Sep 02, 2024**
Date of Acceptance: **Oct 05, 2024**
Date of Publishing: **Feb 01, 2025**