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Dermatology Section

Circinate Balanitis in a Patient with Sexually Acquired Reactive Arthritis: Clinical Images

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A 37-year-old male patient presented to Dermatology Out Patient Department (OPD) with complaints of multiple hyperkeratotic plaques over his entire body, bilateral palms, and soles for one year. The lesions were associated with low back pain and bilateral knee joint pain. The lesions were also associated with onycholysis and subungual debris in the nails of bilateral hands and feet. The patient complained of occasional dysuria and purulent discharge in urine. The patient also had a history of sexual contact six months before the onset of lesions. On further examination of the genitals, the penile region revealed multiple asymptomatic superficial erosions that coalesce to form a sharply demarcated, serpiginous pattern [Table/Fig-1]. Multiple hyperkeratotic papules and plaques with exfoliation of skin were present over the sole, suggestive of keratoderma blennorrhagicum [Table/Fig-2].

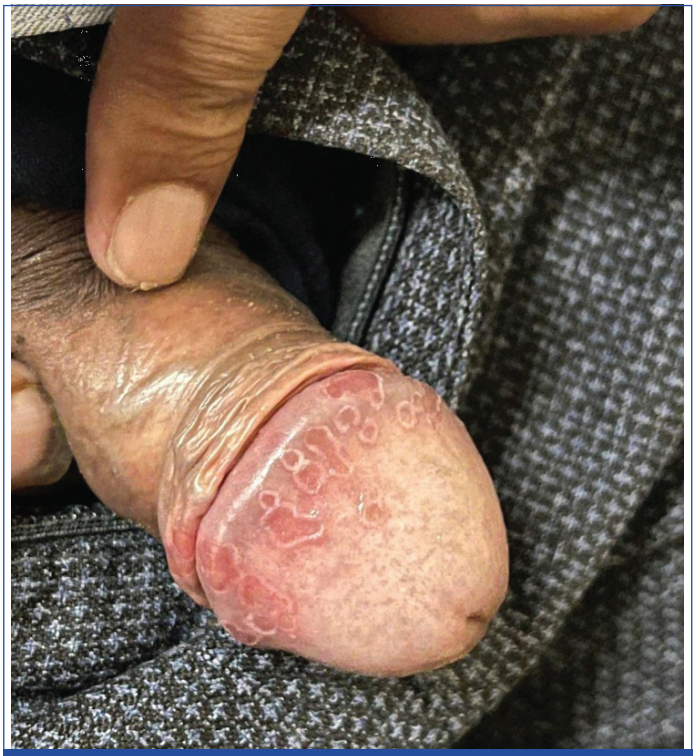
On laboratory investigation, there was elevated C-reactive protein (56.4 mg/L), increased erythrocyte sedimentation rate (26 mm/h), and pus cells on urinalysis. On further investigation, HLA-B27 was positive, and radiological studies suggested sacroiliitis. The patient was started on Sulfasalazine 500 mg twice daily, Methotrexate 10 mg once a week, Indomethacin 75 mg once daily, oral antibiotics, and symptomatic treatment for joint pain, and achieved significant remission of disease in four months. The patient was also started on topical steroids with salicylic acid and maintained on topical methotrexate gel (1%) for hyperkeratotic plaques.

Reactive Arthritis (ReA) is an inflammatory form of spondyloarthritis that develops from a remote site infection. Sexually Acquired Reactive Arthritis (SARA) is the term used to describe ReA that is triggered by a Sexually Transmitted Infection (STI) [1]. Circinate balanitis is the most frequent mucocutaneous manifestation of SARA, a rheumatologic disorder linked to HLA B27. It may appear independently or in conjunction with other SARA mucocutaneous characteristics [2].

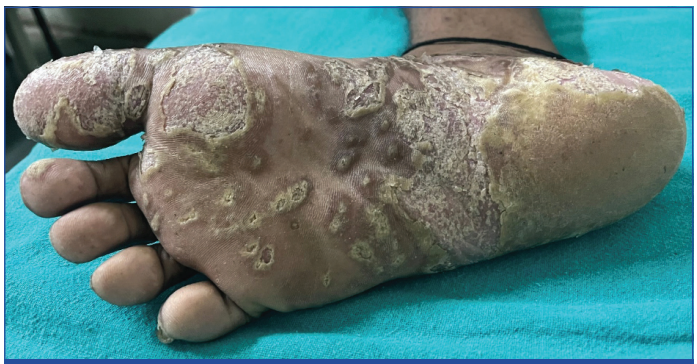
Circinate balanitis can be the only presentation of *Chlamydia trachomatis* infection in certain patients. Patients with circinate balanitis may benefit from routine HLAB27 genetic testing to predict their long-term outcomes [3].

Liu Y et al., discussed a case of a 28-year-old male with ankylosing spondylitis treated with Adalimumab and Leflunomide who developed glans annular erythema along with urethral purulent discharge and urinary pain. In this case, he suggested that the combination of adalimumab and an immunosuppressive agent (leflunomide) may have been an important factor in inducing *U. urealyticum* infection [4].

Chudomirova K et al., presented a case of a 21-year-old male with tetrad of arthritis, conjunctivitis, urethritis, and mucocutaneous lesions known as the Reiters syndrome. In this case, radiological studies showed sacroiliitis, thoracic spondylosis, and arthritis of the feet with a urethral smear Positive for *Chlamydia trachomatis* (PCR) [5].



[Table/Fig-1]: Multiple well-demarcated erythematous annular and polycyclic lesions over the glans penis.



[Table/Fig-2]: Multiple hyperkeratotic papules and plaques with exfoliation of skin present over the sole suggestive of keratoderma blennorrhagicum.

Here, a classical case of SARA with polycyclic and annular lesions over the glans penis with HLA-B27 positivity has been presented.

REFERENCES

[1] Denison HJ, Curtis EM, Clynes MA, Bromhead C, Dennison EM, Grainger R. The incidence of sexually acquired reactive arthritis: A systematic literature review. Clin Rheumatol. 2016;35(11):2639-48. Doi: 10.1007/s10067-016-3364-0. Epub 2016 Aug 1. PMID: 27480977; PMCID: PMC5065716.

[2] Panigrahi A, Biswas SK, Sil A. Dermoscopy of Circinate Balanitis. Indian Dermatol Online J. 2021;12(3):488-89. Doi: 10.4103/idoj.IDOJ_738_20. PMID: 34211931; PMCID: PMC8202490.

[3] Carney R, Buhary T, Teh LS, Gayed S. Circinate balanitis as the presenting symptom of sexually-acquired reactive arthritis: A case report. Br J Gen Pract. 2015;65(634):266-67. Doi: 10.3399/bjgp15X685057. PMID: 25918330; PMCID: PMC4408497.

[4] Liu Y, He J, Jiang J, Wang Y, Liu T. Reactive arthritis triggered by adalimumab and leflunomide in a patient with ankylosing spondylitis. Clin Cosmet Investig Dermatol. 2022;15:2601-05. Doi: 10.2147/CCID.S390918. PMID: 36483747; PMCID: PMC9725927.

[5] Chudomirova K, Abadjieva Ts, Yankova R. Clinical tetrad of arthritis, urethritis, conjunctivitis, and mucocutaneous lesions (HLA-B27-associated spondyloarthropathy, Reiter syndrome): Report of a case. Dermatol Online J. 2008;14(12):4. PMID: 19265617.

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