

Clinical Image

Open Access, Volume 6

A rare intersection of Hansen's disease and arthritis: Lucio phenomenon and nephropathy in paucibacillary leprosy**Ajeet Kumar Chaurasia; Poonam Gupta***

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Received: Feb 06, 2025

Accepted: Mar 05, 2025

Published: Mar 12, 2025

Archived: www.jcimcr.org

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DOI: www.doi.org/10.52768/2766-7820/3505

Case presentation

A 50 year old postmenopausal lady, presented in July 2024, with non-itchy hyperpigmented and erythematous cutaneous lesions on all limbs from 2 months, pain with morning stiffness in small joints of hands and feet and large joints of ankle, elbow and knees from 1 and 1/2 months with no history of fever. On examination BP=86/54 mmHg, symmetrical swollen hands and feet having pitting oedema with lucio leprosy [1] as necrotic ulcers on dorsum of both the hands and feet besides severe cutaneous leprosy, synovial thickening of small joints and markedly thickened bilateral Ulnar nerve. Lesions were slightly anaesthetic. Investigations showed leucocytosis with WBC Count 14000/mm³, S.Urea 101 mg/dl (13-43 mg/dl) & S. Creatinine 5.09 mg/dl (.6-1.2 mg/dl), CRP Reactive, Urinary Protein ++100 mg/dl, S.Uric acid 9.1 mg/dl (2.6-6 mg/dl), S.AntiCCP=1 U/ml (less than 5 U/ml), 24 Hr Urinary Protein was 1080.4 mg/day (less than 150). On slit skin smear AFB Bacillary index 1+ seen with skin Biopsy suggesting ENL.

Discussion

Rheumatoid Arthritis, Psoriatic, Polyarticular gout, Reactive arthritis were kept as differentials. Usually bacterial infections either lead to monoarthritis or oligoarthritis, Hansen's is the only bacterial which causes polyarthritis with neurocutaneous involvement. Often it is lepromatous leprosy with AFB 4+ that causes Hansen's arthritis and on an average it takes nearly 3-10 years for the diagnosis to be get caught. Renal involvement in Leprosy can be acute and chronic glomerulonephritis, interstitial nephritis, secondary amyloidosis and pyelonephritis, and is seen often in multibacillary but here it is seen in paucibacillary [2]. Here the case was diagnosed as Tuberculoid leprosy, ENL, Lucio phenomenon, Acute Hansen's Arthritis with Swollen hand and feet syndrome and leprosy nephropathy AKI3 (non-oliguric) [3]. Patient was put on Steroid (Omnacortil 30 mg/d), rifampicin 600 mg, clofazimine 100 mg a month and dapsone 100 mg/d. On 9th day of MDT S.creatinine reduced to 2.24 mg/dl and uric acid was 4.9 mg/dl. After a month, She got marked improvement in all her symptoms and reports reached normal values.



Figure 1: Musculoskeletal (swollen hand and feet syndrome with acute Hansen's arthritis) and cutaneous Hansen. **(a)** Swollen feet with Lucio phenomenon. **(b)** Swollen hand with Lucio phenomenon. **(c)** Cutaneous erythematous and hyperpigmented lesions on arm and forearm. **(d)** Cutaneous erythematous and hyperpigmented lesions on thighs and legs.

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