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Case Report

A Case of Histoid Leprosy in a HIV Infected Person on HAART not responding to conventional MB MDT

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A 46 year old male diagnosed case of Acquired Immuno Deficiency Syndrome (AIDS) on Highly Active Anti Retroviral Therapy (HAART) presented with raised nodular skin lesions of two months duration which on skin biopsy was diagnosed as Histoid leprosy. Individual was put on standard Multi Bacillary Multi Drug Therapy (MB MDT) for two months has shown exacerbation of lesion and was later put on daily Rifampicin, Ofloxacin and Minocycline (ROM) for which he responded. Interesting feature is rarity of association of HIV with Histoid Leprosy where the patient did not respond to the conventional MB MDT and later responded to daily ROM.

Key words : Histoid leprosy, HAART (Highly active antiretroviral treatment), ROM (Rifampicin, Ofloxacin and Minocycline), MB MDT (Multibacillary Multi Drug Treatment)

Key messages : Leprosy must be kept in mind in differential diagnosis of cutaneous nodules in HIV patients. Drug resistance must be considered in cases recalcitrant to conventional therapy and remedial measures must be considered. Further research and studies are required to establish existence of multi drug resistance (MDR) leprosy similar to MDR tuberculosis.

Introduction

Histoid leprosy is an expression of multibacillary leprosy, which is a well-recognized clinical entity. Few case reports are available showing the association of HIV and leprosy and association of Histoid leprosy and HIV infection is even very rare (Bumb et al 2010). We are reporting a case of histoid leprosy in an advanced HIV patient who did not respond to conventional Multi bacillary Multi drug treatment (MB MDT) and later showed very good response to daily Rifampicin, Ofloxacin and Minocycline (ROM). The diagnosis of histoid leprosy was missed clinically since the patient did not show any feature of Hansen's disease and was clinched by histopathology.

Case Report

A 46 year old Ex-serviceman, resident of Kolar (Karnataka) presented with raised nodular skin lesions over the body of two months duration. They initially appeared over face and lower limbs which over a period involved trunk and upper limbs. Lesions gradually increased in size and number and were associated with mild itching. There was no history of pain, oozing or discharge

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from the lesions. There was no history of associated fever, head ache, photophobia, vomiting, swelling of joints and feet, oro-genital ulcers, sensory loss or epistaxis.

He was a diagnosed case of AIDS for last 10 years with baseline CD4 count as 200 cell/mm^3 and was on HAART since last 5 years. Since he didn't respond to first and second line of HAART he was put on salvage therapy with Tenofovir, Emtricitabine, Atazanavir and Ritonavir. Injection G-CSF 250 microgram was given weekly for drug induced leucopenia. He had history of treated oral thrush and oesophagial candidiasis in the past. There was no history of any other co-morbidities or opportunistic infections.

On examination he was poorly nourished with height of 171 cm and weight 48 kg (BMI-16.4 kg/m^2). Vitals and systemic examinations was normal. Dermatological examination revealed numerous, discrete, bilaterally symmetrical skin coloured papules, nodules and plaque over the face, ears, upper trunk, extensor aspect of thighs and elbows (Fig 1). Some lesions had central umbilication and few had central flattening. There was no sensory loss over the lesion, skin patches, any peripheral nerve thickening, madarosis, redness of eyes, testicular atrophy, wasting, deformity and trophic ulcers. Palms, soles, external genitalia and hair were normal.

At this point we considered the differential diagnoses of molluscum contagiosum, atypical mycobacterial infection, cryptococcosis, coccidio-idomycosis and pencilliosis.

Routine hematological and biochemical para-meters were normal and CD4 count was 147 cell/mm^3. Skin biopsy from the nodular lesion showed diffuse spindle cell proliferation with focal epithelioid cell changes (Fig 2). Ziehl Neelsen

Fig 1 : Bilaterally symmetrical skin coloured papules, nodules and plaque over the face

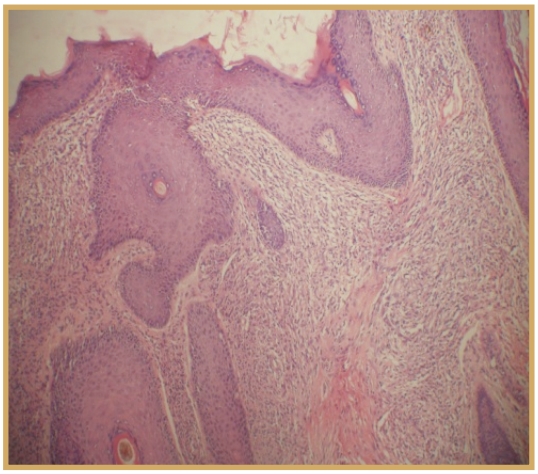

Fig 2 : Skin biopsy from the nodular lesion showed diffuse spindle cell proliferation with focal epithelioid cell changes

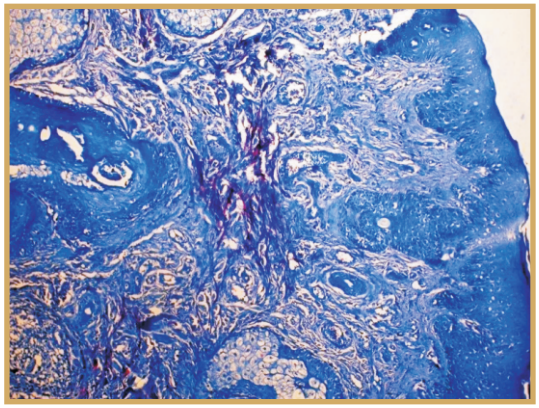

Fig 3 : Ziehl Neelsen (ZN) stain (modified) showed numerous AFB in the dermis.

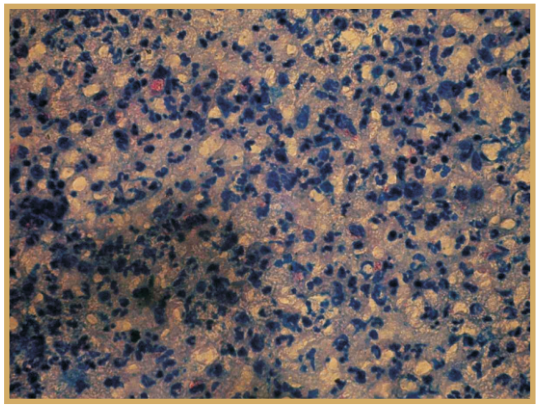

Fig 4 : Slit skin smear for acid fast bacilli (AFB) showed bacterial index (BI)-6+ and morphological index (MI)-35%.

(ZN) stain (modified) showed numerous AFB in the dermis (Fig 3) and an opinion of Histoid Leprosy was given. On re-evaluation of patient there was no loss of sensation, right ulnar nerve was marginally thickened, non tender, firm and regular. Slit skin smear for acid fast bacilli (AFB) showed bacterial index (BI)-6+ and morphological index (MI)-35% (Fig 4).

A final diagnosis of Histoid leprosy with HIV infection was made based on the typical cutaneous and sub cutaneous lesions over apparently normal skin, slit skin smear positive for AFB(L) and characteristic histopathology.

He was started on standard MB MDT consisting of Rifampicin 600 mg monthly, Dapsone 100 mg daily and clofazamine 50 mg daily. He responded to treatment with decrease in size of existing lesions and appearance of no fresh lesion. However patient returned back after two months with increase in the size and associated purulent discharge from the lesions. On examination there were no features of neuritis or lepra reaction. Gram staining, bacterial, fungal and mycobacterial culture of discahrge from the lesion was negative. Repeat CD4 count showed 150cell/mm^3 and Slit Skin Smear examination showed BI-6+ and MI-30%. The treatment was revised, conventional standard MB MDT was stopped and he was put on daily ROM for 4 week. Patient showed good response to treatment with decrease in size of lesion, few lesions healing with hyper pigmentation and no fresh lesions appeared. Patient was then under follow up with Minocycline 100mg OD, Clofazamine 50mg OD and Rifampicin 600mg once monthly for five months. At the end of six months of revised treatment his BI was 1+ and MI 5%.

Discussion

The term Histoid leprosy was coined by Wade in 1963. It is a well recognized clinical entity, an expression of multibacillary leprosy, characterized by typical cutaneous and/or subcutaneous nodules and plaques over apparently normal skin with unique histopathology and characteristic bacterial morphology, believed due to the development of drug resistance to DDS

(Sehgal and Srivastava 1987, Wade and Tolentino 1963). Reactional episodes are seldom recorded in this entity (Wade and Tolentino 1963).

There are very few case reports of leprosy in association with HIV (Goodle et al 1994, Schettine et al 1991). For patients to have leprosy associated immune reconstitution inflammatory syndrome (IRIS) they have to have the following features- (a) leprosy and/or leprosy reaction presenting within 6 months of starting HAART, (b) advanced HIV infection, (c) a low CD4+ count before HAART and (d) CD4+ count increase after HAART (Lockwood and Lambert 2010). The time lag of greater than 6 months since the initiation of HAART and no rise in CD4+ count excludes the diagnosis of IRIS in our case.

Association of histoid leprosy & HIV is very rare. Bumb et al (2010) reported a case of Histoid leprosy developing in HIV infected patient taking HAART for 9 months who responded to conventional MB MDT. Our patient also developed histoid leprosy while on HAART for 5 years. However our patient didn't respond to conventional MB MDT but later showed very good response to second line therapy with daily ROM. Both the cases didn't show any signs and symptoms of IRIS.

HIV with leprosy are known to respond adequately to antileprosy chemotherapy without need for prolonged treatment courses (Bwire and Kawuma 1994, Vreeburg 1992). The effect of drug therapy is variable in histoid leprosy, the recommended schedule is MB (MDT) for atleast two years; and preferably till smear negativity (Sehgal and Srivastava 2010).

The increase in size of lesion can be considered as exacerbation of existing lesion due to not responding to conventional MB MDT. It can also be due to concomitant advanced HIV infection, infection due to dapsone resistant bacilli and/or de novo. Bacterial sensitivity study was not carried out in this case since the facility was not available in our centre and the financial constraints of patient.

The case has been reported to high light the rarity of association of HIV with histoid leprosy where the diagnosis was not thought of clinically and was later clinched by histopathology. Index of suspicion regarding leprosy needs to be raised in HIV patients in India where it is still very much a health problem. It is also interesting since the patient didn't respond to conventional MB MDT and has later shown good response to second line therapy with ROM. Further research and studies are required to establish or rule out existence of MDR (multi drug resistance) as cause of treatment failure in leprosy particularly in the setting of HIV/AIDS.

References

1. Bumb RA, Ghiya BC, Jakhar R et al (2010). Histoid leprosy in an HIV positive patient taking cART. *Lepr Rev*. **81**: 221-223.
2. Bwire R and Kawuma HJ (1994). Type 1 reactions in leprosy, neuritis and steroid therapy: the impact of the human immunodeficiency virus. *Trans R soc Trop med Hyg*. **88**: 315-316.
3. Goodle DR, Viciana AL, Pardo RJ et al (1994). Borderline tubercuoid Hansen's disease in AIDS. *J Am Acad Dermatol*. **30**: 866-869.
4. Lockwood DN and Lambert SM (2010). Leprosy and HIV, where are we at? *Lepr Rev*. **81**: 169-175.
5. Schettine AP, Ribas J, Rebello PF et al (1991). Leprosy and AIDS in Amazon basin. *Int J Lepr Other Mycobact Dis*. **64**: 171-172.
6. Sehgal VN and Srivastava G (1987). Status of histoid leprosy-a clinical, bacteriological, histopathological, and immunological appraisal. *J Dermatol*. **14**: 38-42.

7. Sehgal VN and Srivastava G (2010). Histoid leprosy. In: Kar HK, Kumar B, editors. IAL Textbook of Leprosy. 1st ed, New Delhi. Jaypee Brothers Medical Publishers (P) LTD; 2010. p.174.
8. Vreeburg AE (1992). Clinical observations on leprosy patients with HIV-1 infection in Zambia. *Lepr Rev*. **63**: 134-140.
9. Wade HW (1963). The histoid variety of lepromatous leprosy. *Int J Lepr.* **31**: 129-142.
10. Wade HW and Tolentino JG (1963). Histoid (high-resistance) lepromatous leprosy. Abstracts of congress papers 191. *Int J Lepr.* **31**: 608-609.

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