Abstract:

Leprosy is a chronic progressive infectious disease caused by Mycobacterium leprae involving primarily peripheral nerves and skin. Lepromatous leprosy is a severe form of leprosy characterized by generalized polymorphic lesions constituting macules, patches, papules, nodules and infiltrated lesions distributed symmetrically over face, trunk and extremities. It is characterized by defective cell mediated immunity against lepra bacilli and hence involvement tends to be generalized.

However it can have various variants like, lucio leprosy or other atypical forms like urticaria wheal like, localized lesions or autoaggressive hanseniasis. We report a case of a lepromatous leprosy with an atypical presentation with lesions localized to flanks.

Case report:

A 50 year old male patient presented to skin OPD with multiple asymptomatic non progressive raised reddish skin lesions over the abdomen, localized to the flanks for the past 8 months. There was no history of hypopigmented hypoesthetic patch, epistaxis, pedal edema or sensory disturbances either over the lesions or over the extremities. There was no history of systemic disturbances.

General examination of the patient was normal. Dermatological examination revealed multiple erythematous, well to ill defined, infiltrated, shiny papules and plaques present over lateral aspect of the lower abdomen, bilaterally (Fig 1 & 2).
No other skin lesions or trophic lesions were seen. Sensation over the lesions and over the extremities were unimpaired. Peripheral nerve examination was normal. Testicular and corneal sensation was normal. Motor system examination was normal.

Investigations:

Routine blood investigations like hemogram, liver and renal function tests were within normal limit. Slit skin smear was done from the papular lesions over both flanks and from the normal skin. Lesional skin revealed positive solid staining acid fast bacilli with the bacteriological index of 6+ (fig 3) and normal skin was negative for acid fast bacilli. Histopathology of the lesion showed thinned out epidermis, flattened rete ridges, subepidermal free zone (Grenz zone) and diffuse infiltration of the whole of dermis with foamy macrophages (fig 4 & 5). Special stain with Fite Faraco showed multiple solid staining acid fast rods along with globi formation at few locations (fig 6).

Based on clinical presentation and investigational reports diagnosis of lepromatous leprosy was made and patient was started on MB-MDT.

Discussion:

Lepromatous leprosy is a systemic disorder presenting with generalized skin lesions with multiple symmetrical, polymorphic cutaneous lesions along with ear lobe involvement, madarosis, leonine facies, gynaecomastia, epistaxis and bilateral pedal edema. Rarely it can present in various atypical forms like urticarial wheals like⁶, adenoma sebaceoum like⁷, mimicking sweet’s syndrome³, localized type⁹, with bullous lesions during ENL reaction¹⁰ or just with apparently normal appearing skin¹¹. These atypical forms result in diagnostic difficulty and hence delay in treatment. In our case though leprosy was our first diagnosis we also considered histoid variant, cutaneous B cell lymphoma and sarcoidosis for our differential diagnosis. These conditions though mimic leprosy clinically can be easily distinguished by slit skin smear and histopathological examination.

Our case presented with erythematos infiltrated papules and nodules localized to flanks in contrast to previous unusual case report by Barman et al which had generalized asymmetrical lesions with type II lepra reaction¹². However there was no madarosis, ear lobe involvement or signs of sensory disturbances in our case. But based on investigations like slit skin smear which showed 6+ BI and histopathology and special stains a diagnosis of lepromatous leprosy was made. But the reason for this localization is not known.
Even though rare these atypical presentations have got a great epidemiological significance both in diagnosis and treatment selection. It also indicates the importance of performing smear examination in every suspected case of leprosy and histopathological examination where ever possible even in this post elimination era.

Figure 1 – multiple, erythematous, infiltrated papules and plaques over right lower abdomen

Figure 2 – multiple, erythematous, infiltrated papules and plaques over left lower abdomen

Figure 3 – Skin smear stained with modified acid fast stain showing multiple acid fast solid staining bacilli (magnification 100x)

Figure 4 – Histopathology of papular lesion showing thin epidermis, flat rete ridges, grenz zone and foamy macrophages (magnification 10x)
Figure 5 - Histopathology of papular lesion showing thin epidermis, flat rete ridges, grenz zone and foamy macrophages (magnification 40x)

Figure 6 – Special stain with Fite Faraco showing acid fast solid staining bacilli and globi formation (magnification 100x)

References:


