RELAPSE, REINFECTION OR INADEQUATE MDT?

Maganjeet, Rakesh Bharti

Relapse by all standard definitions is reported in a middle aged woman after PB MDT. Since she belonged to a family of treated leprosy sufferers (husband and his elder brother) and her daughter has now developed infectious type of leprosy, the possibility of reinfection can also not be ruled out.

Key Words : Leprosy, Hansen's disease

Introduction

Relapse in leprosy is defined variously as "development of new signs and symptoms of the disease either during surveillance period or thereafter in a patient whose therapy was terminated, having successfully completing an adequate course of MDT,"[1] "a situation where there is reappearance of the disease after its complete subsidence,"[2] "fresh multiplication and spread of surviving leprosy bacilli in a patient who had previously responded to therapy."[3]

Case Report

A 35-year-old married woman from rural area of Punjab, reported with two ill-defined, hypopigmented, dry, scaly, partial to complete (75-100%) anaesthetic patches of 7x4.5 cm and 8x5 cm on the dorsum of right wrist and left elbow respectively, in March 1994, for last 6 months. No nerves in the vicinity of lesions or otherwise were thickened. Her slit skin smear for AFB was negative and skin biopsy was consistent with the clinical diagnosis of BT leprosy. She was put on PB MDT (WHO regimen) which she completed in September 1994, and so she was released from the treatment.

From Upgraded Urban Leprosy Centre, Civil Hospital, Amritsar-143001, India.

Address correspondence to : Dr Maganjeet, MO MLTUC (UULC), 2413/I-23, Cheel Mandi, I/S Mahan Singh Gate, Amritsar-143001.

Her husband was also suffering from the similar ailment (BT leprosy). He had one lesion on right elbow and the slit skin smear for AFB was negative. He took complete treatment of PB MDT and was released from treatment in February 1995. His elder brother suffered from lepromatous type of leprosy for 6 months before reporting, was registered with upgraded urban leprosy centre, Amritsar, in June 1991. He had whole body infiltration with BI of +4. He was given MB MDT (WHO regimen) and was released from treatment in October 1993. They all live in a joint family.

A year later in October 1995, the lady (under report) developed activity in the old lesions viz sweling and redness along with pain in right arm. She also complained of partial loss of sensation in both upper extremities (forearms and hands) and lower extremities (legs and feet). She had thickened ulnar and lateral popliteal nerves. Slit skin smear for AFB was positive with BI of +3. She was put on MB MDT (WHO regimen) along with aspirin and steroids orally, patient did not have any relief of swelling or pain after two months of above treatment, so she was put on another bactericidal drug, pefloxacin (400 mg OD) in addition to usual MB MDT (WHO regimen) to which the patient responded remarkably.

Keeping in view of the family history of the patient, thorough contact survey of all

the family members of the patient was done by MLTU team in November 1995. None of the 2 patients, who had earlier taken PB MDT and MB MDT, showed any sign of activity in earlier lesions nor there were any fresh lesions. Slit skin smears of both were negative for AFB.

The lady's (under report) daughter had a single, pale, dry, anaesthetic, macular lesion on right cheek with ill-defined margin, of the size of about 5x3 cm. No nerves were thickened in the vicinity of lesion or elsewhere in the body. Her slit skin smear for AFB was positive with BI of +3. She has also been now put on MB MDT (WHO regimen).

Discussion

Relapse can be caused by reinfection or persisters, in a patient who was released from treatment after MDT. Although it is not easy to differentiate relapse from reversal reaction, the widely held view is that relapse in paucibacillary leprosy patients occurs one year after release from treatment. Waters et al[3] suggested that symptoms which developed within 6 months of stopping WHO PB MDT were almost certainly due to reversal reaction, where as symptoms that developed 12 months after stopping treatment (MDT) were more likely to be relapse. Meyers suggests that 6 months of MDT may be too short for paucibacillary patients. Cases classified PB clinically are MB histopathologically, and therefore, should receive MB regimen. This is based on the fact that relapse rate for MDT are 1-2 per 1000 patient years observation for PB patients and 0.2 per 1000 patient years for MB patients.[4]

The patient reported here developed symptoms one year after stopping PB MDT (WHO regimen) thereby fitting in the definition of relapse, but development of new lesions in her daughter (infectious type) and earlier presence of disease in her husband and his elder brother (all living together in a joint family), put the needle of suspicion towards either reinfection from persisters in one of the family members who suffered leprosy earlier or inadequate treatment or resistant bacteria.

One of the aims of studying relapse rates is to discuss the efficacy of a drug regimen. It is increasingly felt that the duration of surveillance recommended by WHO is not sufficient. The role of reinfection causing relapse is being emphasized in some publications.[5] If the role of reinfection as the cause of relapse is duly asserted the duration of surveillance becomes open-ended.

References

1. Reddy PK, Cherian A. Relapse in Hansen's disease after multidrug therapy and its differential diagnosis with reversal reaction. The Star: WHO Technical Report Series 716, Lousiana 1991; 50:8-13.
2. Aranthalhi S. Proceeding of Joint Meeting of Indian and Chemotherapy of Leprosy (THELEP) Scientists on MDT in leprosy, SLR and T-Centre. Karigiri 1989; 88.
3. Waters MFR, et al. Clinical problem in initiating and assessment of MDT. Lepr Rev 1986; 57 (Suppl 13) : 92-100.
4. Meyers WM. Leprosy research-progress still slow . Medicine 1990; 92-100.
5. Bharti, Malhotra SK. Relapse after PB MDT. Ind J Dermatol Venereol Leprol 1992;58:41-2.