Current scenario of leprosy at tertiary care level hospital of rural central India

Sir,
India contributes about 80% of the global leprosy
case load and every year approximately 4 00 000 new cases of leprosy are detected in India.[10] In spite of all measures, leprosy is a major public health problem in India, which affects many people every year and significantly high new case detection rate.[2] New leprosy cases detected during the year 2004–05 were 2.60 lakhs giving the Annual New Case Detection Rate (ANCDR) of 2.34 per 10 000 population.[3]

In our study, we included all confirmed cases of leprosy (by clinical history, cutaneous examination, slit-skin smear and skin biopsy), who attended our rural hospital from January 2003 to December 2005. Patients who were already on multidrug therapy (MDT) or completed the therapy were considered as old patient, while patients who were neither diagnosed nor taken any therapy for leprosy were considered as new patients. Apart from lepromatous leprosy (LL), borderline lepromatous leprosy (BL), borderline-borderline leprosy (BB), borderline tuberculoid leprosy (BT) and tuberculoid leprosy (TT),[4] two more categories, indeterminate leprosy (I) and pure neuritic leprosy (P), were included. All the patients received MDT as per the WHO recommendations ranging from 6 months to 1 year. The clinical progress of the disease process was recorded in each case. Patients who stopped the treatment (e.g. due to change of registered place, non-availability of the drug, lepra reactions, etc.) and did not complete the recommended treatment were considered as defaulters.

There were a total of 225 patients who received treatment for leprosy. Male patients outnumbered females (M : F 2.08 : 1). The most common type of leprosy was borderline tuberculoid 74 (32.89%) followed by tuberculoid leprosy 53 (23.56%). The total number of patient who received and completed MB-MDT (multibacillary multidrug therapy) was 171 (76%), and PB-MDT- (paucibacillary multidrug therapy) were 54 (24%) respectively. Lepra reactions occurred in 33 (14.67%) patients (Type 1 reaction: 19; Type 2 reaction: 14). Total number of defaulters was 19 (8.45%) and total number of patients with deformity was 16 (7.11%). Total number of smear-positive patients was 52 (23.11%). One case each was diagnosed with indeterminate and pure neurotic leprosy, respectively. Two patients had features of histoid leprosy. Tuberculoid type was more common in new cases, while borderline tuberculoid type was more common in old cases. At follow-up, all cases responded well to MDT.

In our study, the disease was more common in males than females; this is the general pattern in India where males frequently self report for treatment.[5] The type of leprosy commonly present was BT followed by TT.[5] Although clinically more number of patient were diagnosed with tuberculoid and borderline tuberculoid type of leprosy, most of them (n = 171) received therapy for MB (MDT). This was based on the fact that investigations (either slit-skin smear or histopathology) were suggestive of MB type of leprosy. In one study, it has been reported that patients whose leprosy was diagnosed clinically as PB-type initially, 38–51% of them had MB-type of leprosy and were thus at risk of under-treatment.[6] In our study, there were 225 total number of patients, out of whom 176 (78.22%) were new patients which suggest that prevalence of leprosy is decreasing but detection of new cases is still relatively high. Large numbers of new cases have been detected in recent years because of adoption of new strategy, Modified Leprosy Elimination campaign (MLEC), and effective health education campaign.[2] The most important factor that could have significant impact on prevalence is the coverage of the entire population with adequate MDT service.[1] These changes indicate early detection of cases due to better awareness in the community about the disease.[5,6]


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Erythroderma: Clinical and laboratory follow up of 66 Mexican patients

Sir,

Erythroderma, first described by Hebra in 1868, is an inflammatory disorder characterized by erythema and scaling involving more than 90% of the body surface. It results from a previous skin disease (psoriasis, atopic dermatitis), drugs, underlying neoplasm; or idiopathic, with an acute or insidious onset, and prognosis frequently related to the cause, time of evolution, onset, associated diseases, and laboratory findings.

We studied records of 66 patients with erythroderma, admitted to the Department of Dermatology, Hospital General de Mexico, between 1996 and 2007. Data collected from the records comprised of onset of erythroderma, time of evolution, symptoms, associated disorders, previous skin disease, drug intake, aggravating factors, and laboratory parameters (hemoglobin, total leukocyte count, erythrocyte sedimentation rate [ESR], serum proteins, creatinine, electrolytes, lactate dehydrogenase [LDH], blood glucose, liver function test, urine examination, and chest x-ray). Skin biopsies were performed in all cases; lymph node biopsy, computerized axial scan, and determination of β2 microglobulin levels were undertaken when indicated.

All records selected fulfilled inclusion criteria. The mean age at onset was 44 years (range, 15-84 years). The sample consisted of 18 female and 44 male patients. In our study, erythroderma commonly showed a gradual onset, frequently related to previous dermatosis (time of evolution, 6.47 ± 3.7 months). Itching and chills were the most common symptoms in 100% and 75% of the patients respectively. The most common causes of erythroderma were a) psoriasis (46%) classified as a previous disease, b) carbamazepine for drug-related erythroderma (69%), and c) cutaneous T-cell lymphoma for underlying neoplasm. The most important laboratory results were hypoalbuminemia (75%), eosinophilia (35%), and elevated ESR (30%). High levels of LDH were often related to an underlying neoplasm. We also performed a correlation study to show a possible association of eosinophilia and high levels of LDH with paraneoplastic erythroderma (PE) and found that these parameters are frequently associated with this type of erythroderma (497.75 ± 264.64 vs. 99.55 ± 31.46 IU/L, \( P \leq 0.05 \)). There were also differences between levels of blood eosinophils in patients with and without PE (1.55 ± 0.826 vs. 0.829 ± 0.179 K/mm³, \( P \leq 0.05 \)).

Since we did not find a positive association between levels of LDH and eosinophils in patients who died during hospitalization compared with those who lived, independently of the underlying cause, these parameters seem not to be prognostic factors, but are important in association with malignant neoplasm. In patients with erythroderma related to malignancy, LDH and eosinophils levels were higher than those found in patients with erythroderma secondary to other causes. Buechner and Winkelmann recognized that a high level of tissue eosinophils is a bad prognostic factor in erythroderma, because there is a greater probability of it being associated with malignancy, mainly T-cell lymphoma. Similar findings on high serum levels of LDH were arrived at by Vonderheid et al.

Nail findings were recorded in all patients, onychodystrophy and Beau’s lines being the most frequent manifestations, probably due to the large number of cases associated with psoriasis. Skin biopsy is a helpful tool, but it always needs to be performed at more than one site to achieve diagnostic accuracy, especially in patients with gradual onset of erythroderma. Psoriasis was the most common underlying cause of erythroderma, in accordance with previous studies.