Leprosy: 5 year retrospective study at Colombo North Teaching Hospital, Ragama

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Abstract

Leprosy is a well known but poorly understood disease. In 1991 the World Health Assembly (WHA) passed a resolution to eliminate leprosy as a public health problem by the year 2000[4]. In spite of the introduction of multidrug treatment (MDT) by the WHO it still remains a health problem in Sri Lanka. This 5 year retrospective study was undertaken at Dermatology Clinic, Colombo North Teaching Hospital, Ragama to analyse leprosy patients from January 2004 to December 2008 (total of 499 patients).

The incidence of leprosy from years 2004 - 2008 were 95, 94, 116, 85 and 109 respectively, indicating similar figures over past 5 years. Percentage of incidence of reactions of leprosy is 12.82%.

In paucibacillary (PB) treatment group type 1 reaction was managed with prednisolone alone whereas in mixed type 76% required additional drugs.

The occurrence of disabilities stood at a rate of 20.9%, which included multiple disabilities in some of the patients.

Deformities occurred mostly in multibacillary (MB) treatment group, the commonest being claw hand in both treatment groups.

It is important to emphasize that these patients need not only drugs but also a multidisciplinary comprehensive approach to improve their quality of life.

Introduction

In 1981, the World Health Organization (WHO) recommended the use of multi-drug therapy (MDT) for leprosy, using dapsone, rifampicin and clofazimine[4]. The introduction of this regimen was aimed at controlling primary and secondary resistance to drug monotherapy[6], (it prevented *Mycobacterium leprae* from developing further resistance to other antibiotics and diminished relapses). During the same period, the World Health Organization has maintained an effective campaign to promote leprosy work among governments and NGOs', ensuring a free supply of drugs. These measures enabled the WHO to reduce the number of leprosy patient below 1 per 10,000 population[5].

While much has been achieved, the fact remains, however, that the number of newly detected cases has remained fairly constant over this period of time. Furthermore, there are more than 4 million people worldwide who have had leprosy and continue to live with impairment or disability[1].

Thus the total burden of leprosy, has not reduced at the rate that official statistics have implied[8].

Objectives

We undertook this study with the following objectives in mind.

1. To determine the trend of incidence of leprosy
2. To study patterns and treatment of leprosy
3. To detect the incidence of deformities and disabilities
4. To study adverse effects of MDT.

Methods

A 5 year retrospective and descriptive study was carried out in Dermatology Clinic, Teaching Hospital, Ragama. A specific and detailed protocol about the type of leprosy, reactions, side-effects and deformity was prepared and filled out from the records of leprosy patient from January 2004 to December 2008 (total of 499 patients).

Results

Four hundred and ninety nine patients' records were analysed. Out of these 46% were PB cases while 54% were MB cases. The incidence of leprosy from 2004 – 2008 were 95, 94, 116, 85 and 109 respectively. Hence it has remained around the same level over the past 5 years.

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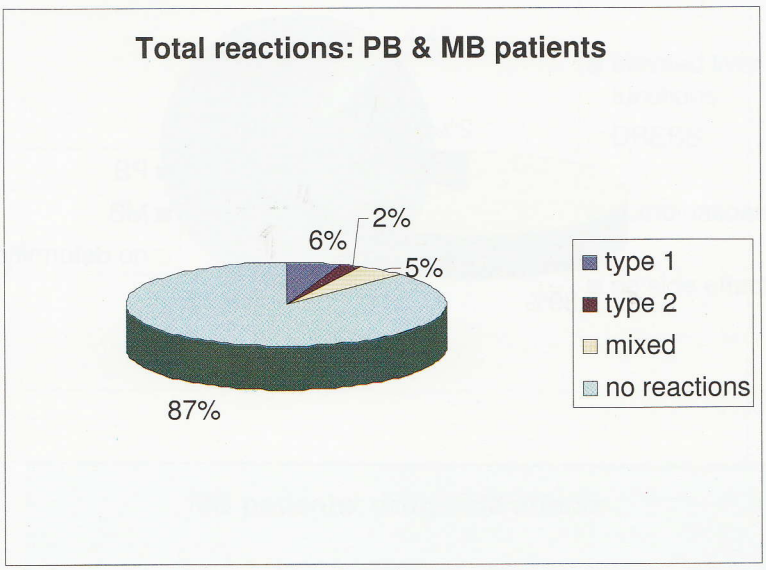
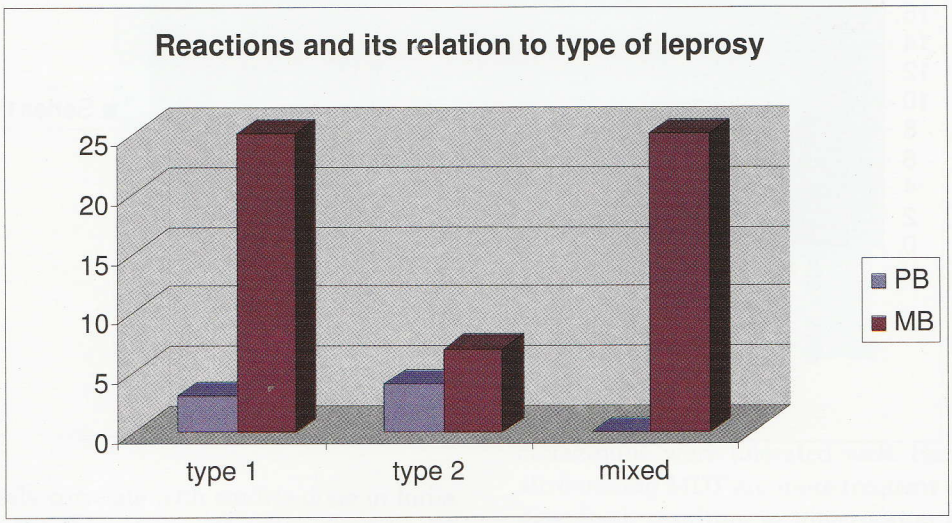
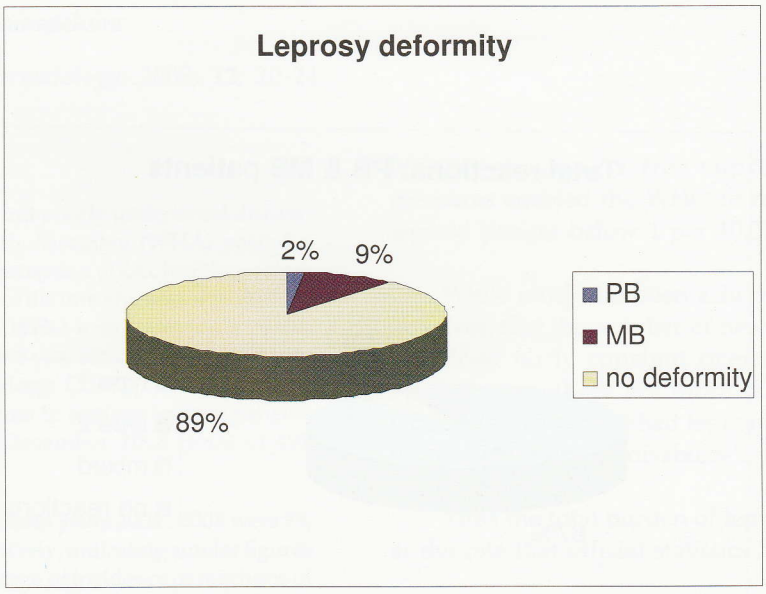
Percentage of incidence of reactions in leprosy is 12.82%. Out of total reactions 43.2% was type 1, 17% was type 2 and 39% was mixed type reactions.

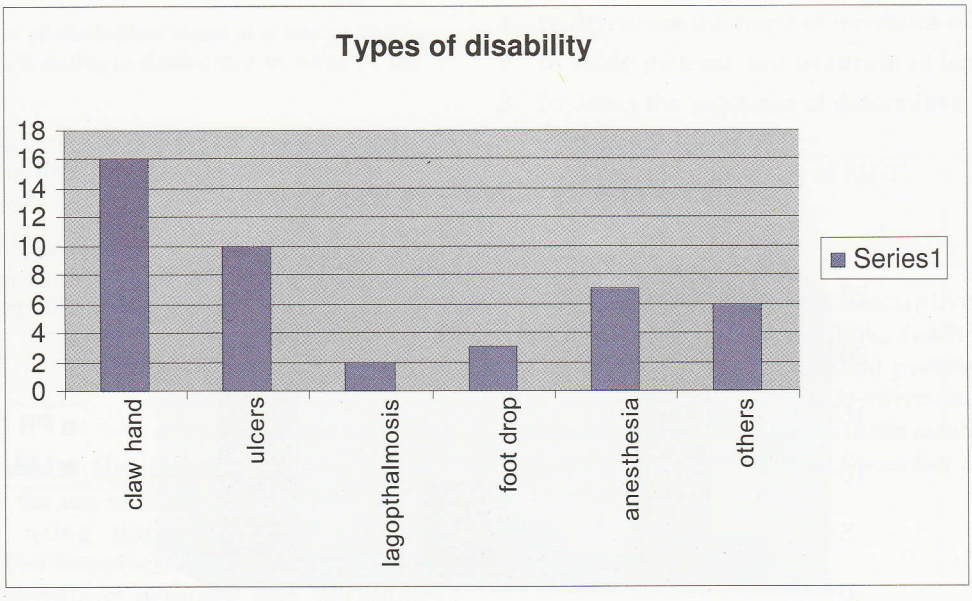




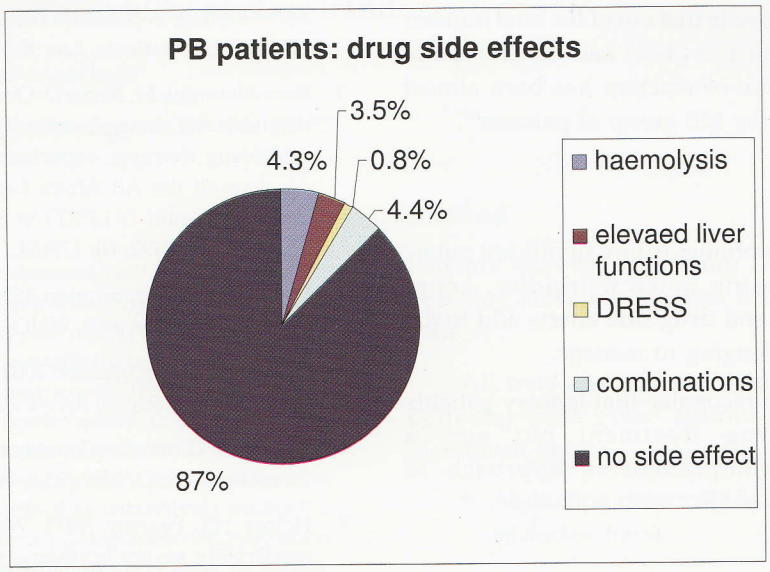
In PB treatment group type 1 reaction was managed with prednisolone alone whereas in MB group both type II and mixed type reactions, 56% required additional drugs.

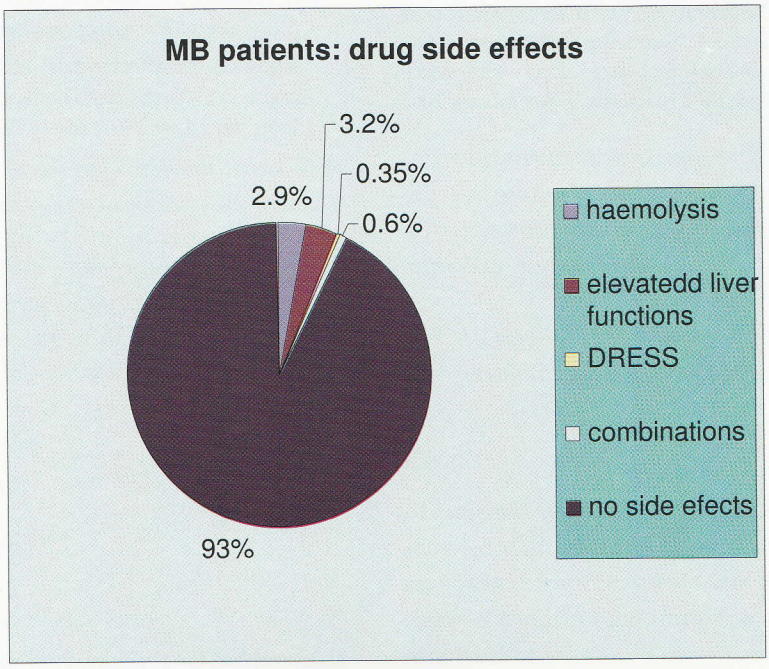
Total disabilities were 20.9% which occurred mostly in MB treatment group. Commonest deformity was claw hand in both treatment groups.





Among anti leprosy drugs majority of side effects were caused by dapsone in both MB and PB treatment groups. These included haemolysis, impaired liver functions, drug hypersensitivity syndrome (4.3%, 3.5%, 0.8% respectively in PB treatment group and 2.9%, 3.2%, 0.35% respectively in MB treatment group).





Discussion

Our data closely correlate with studies done in India. It highlights the importance of continuous health education, case detection and reporting, monitoring of adverse reactions, early detection of disability and deformity[2].

According to WHO, dapsone is considered very safe in the dosage used in MDT with, side-effects being rare. However, our patients had developed side effects mainly due to dapsone. Dapsone had to be withdrawn owing to side effects in both MB and PB patients (3.9% and 4.05% respectively) whereas rifampicin and clofazimine were tolerated well. Hence side-effects attributed to MDT are more frequent than previously described, resulting in interruption of treatment in many patients.

There were 20.9% of total deformities and this is a significant number which need to be managed by physiotherapy, wax bath, splinting, corrective surgery and occupational therapy.

Regarding lepra reactions 12.38% of patients developed this complication leading to much morbility and adding to further disability. As expected MB

patients had the highest number of reactions. It is however, important to note that out of the total number of reactions more than 1/3 (39%) had mixed type of reactions and this type of reaction has been almost exclusively found in the MB group of patients[3,7].

Conclusion

In Sri Lanka leprosy continues to be a significant public health problem causing much morbidity. Lepra reactions, disabilities and drug side effects add to the burden, and are challenging to manage.

It is important to recognize that leprosy patients need not only drug treatment but also a multidisciplinary comprehensive approach to improve their quality of life.

References

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