Case Report
Multiple Grade II Deformities in a Child: Tragic Effect of Leprosy

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Summary
Stigma is almost synonymous with visible deformity and this is what makes leprosy a dreaded disease for the common man. Deformities in children are more distressing, due to the limitation of their physical, academic and social life. An 11-year-old female child was presented with trophic ulceration of right foot and triple nerve paralysis (i.e. total claw hand with wrist drop) of the left hand of 2 years duration. In addition, she had multiple hypopigmented hypoaesthetic patches on the extremities and buttocks. She was diagnosed as a case of borderline tuberculoid leprosy and was started on WHO MB MDT therapy. Leprosy in children is an indicator for disease prevalence in general population and occurrence of deformities points towards the delay in making the diagnosis and the stigma associated with the disease.

Key words: leprosy in children, deformities, triple nerve paralysis.

Introduction
Leprosy is a unique disease; though it rarely causes mortality, morbidity resulting from deformities causes great fear in the minds of patients and public. Deformities in children are more distressing, as it results in limitation of their physical, academic and social life.

It is well recognized that early diagnosis and initiation of treatment with multi-drug therapy (MDT) significantly reduces the chances of subsequent development of deformities [1]. Deformities are largely responsible for the social stigma associated with the disease. On the other hand, the fear of social ostracization may dissuade children or their families from seeking medical care at an early stage. Here, we report a case of childhood leprosy with multiple visible (grade II) deformities.

Case History
An 11-year-old girl child presented to our tertiary care hospital in April 2007 with deformities of left hand of two years duration. She initially developed a wound on the left little finger following trauma, which was treated symptomatically at a local dispensary. Later her parents noticed gradual clawing of all the fingers of left hand. A year later she was diagnosed as a case of Hansen’s disease and was treated with WHO MB MDT (World Health Organization multi drug therapy – multibacillary). Following medications, she developed recurrent episodes of gastrointestinal upset in the form of colicky pain and diarrhea. All medications were discontinued four months later. Gradually, she developed multiple deformities in the form of wrist drop of left hand (6 months back), clawing of the toes and ulceration of the right sole, which she noticed 1 month before the presentation to our hospital. There was no history suggestive of reactions.

She hailed from the adjacent district and was the third child of her parents. They belonged to lower middle class and there were eight members in her family living in a two-bed room house. She was poorly built and nourished; general physical examination was unremarkable except for pallor, and systemic examination was normal. Cutaneous examination revealed 17 hypopigmented, hypoaesthetic patches on the forearm, gluteal region, thigh and legs in an asymmetrical distribution (Fig. 1). Bilateral ulnar, common peroneal and posterior tibial nerves were thickened and nontender. In addition, she had triple nerve paralysis of left hand with trophic ulceration (Fig. 2). Slit skin smear was negative and skin biopsy from one of the representative lesion was suggestive of borderline tuberculoid leprosy. Routine hemogram revealed hemoglobin of...
9.7 gm%; liver function test and renal function test were normal. HIV serology was negative. She was restarted with MB MDT (child) and continued for 1 year. In addition, she was advised dynamic splint along with physiotherapy.

**Discussion**

India accounts for maximum number of cases of leprosy in the world. Since the introduction of MDT, prevalence of leprosy has drastically come down: in 2005, Ministry of Health and Family Welfare (MOH&FW), Government of India has declared that leprosy has been eliminated from India. Out of 35 states, 29 states have achieved the level of elimination. Currently, prevalence rate of leprosy in India is 0.74/10,000 population, with a child proportion of 9.42% [2]. Childhood leprosy is an indicator of disease transmission in the community. Occurrence of the deformities indicates delay in diagnosis and reflects on the functioning of the control program [3, 4, 5]. It is a pity that our patient was not followed up regularly when the treatment was defaulted. Proper care at this stage at least would have prevented her from developing further disabilities.

Since 2001, leprosy program has been integrated into the general health service system. Integration is a cost-effective mode for delivering leprosy services, given the present levels of prevalence [6]. One distinct advantage of such integration is that it will help to get rid of the stigma associated with the disease as leprosy patients seek the healthcare facilities, at the same place and time, as with other nonleprosy patients. However, on the flip side of it is the dilution and slowing down of leprosy program. Since the period of integration, active surveillance has been discontinued; a leprosy worker is being replaced by multipurpose or basic health worker and is attending to TB/HIV work [7]. Other areas of health have taken priority over leprosy, and funds have been diverted to these areas. Our cases may represent only tip of the iceberg problem and there may be pockets of high endemicity even in the areas from where leprosy has been eliminated. Great efforts should be made to root out the last pockets of endemicity. We need to identify them by strengthening the control program and greater vigilance should be maintained to pick up the cases early, especially among children, and the cases also need to be monitored closely to prevent the development of catastrophic complication.

**References**