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Case Report

How Ignorance and Traditional Belief Are Affecting Treatment of Childhood Leprosy in Nigeria: A Case Study

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Childhood leprosy is an important marker of the status of the ongoing leprosy control programme, as it is an indicator of active disease transmission in the community. Multidrug therapy (MDT), when started early, can effectively prevent disease progression and permanent or progressive deformities. Ignorance and traditional beliefs remain major challenges affecting compliance with MDT. We present a case of a 4-year-old male child with leprosy whose treatment was hampered by ignorance and traditional beliefs resulting into a below-knee amputation of the left lower limb which will probably condemn the child to a life with disability. Raising awareness among people thus should continue to receive highest priority.

Keywords: Hansen's Disease, Childhood Leprosy, Ignorance, Traditional Belief

Introduction

Leprosy, also known as Hansen's disease, is a chronic infectious condition caused by the bacterium *Mycobacterium leprae*. It primarily affects the skin, peripheral nerves and mucous membranes of the upper respiratory tract. If left untreated, leprosy can lead to progressive and permanent deformities/disability (WHO 2023, Talhari et al 2014).

Nigeria successfully reduced leprosy to very low levels nationwide in 1998, meeting the goal of having fewer than 1 case for every 10,000 people. Today, leprosy is considered rare in Nigeria, with annual new case detection rate of less than 5 per 100,000 population. However, in some local areas, leprosy is still more common, with prevalence rate of up to 1 case for every 10,000 people (Udo et al 2013).

Childhood leprosy is an important marker of the status of the ongoing leprosy control programme of any country, as it is an indicator of active disease transmission in the community (Khanna

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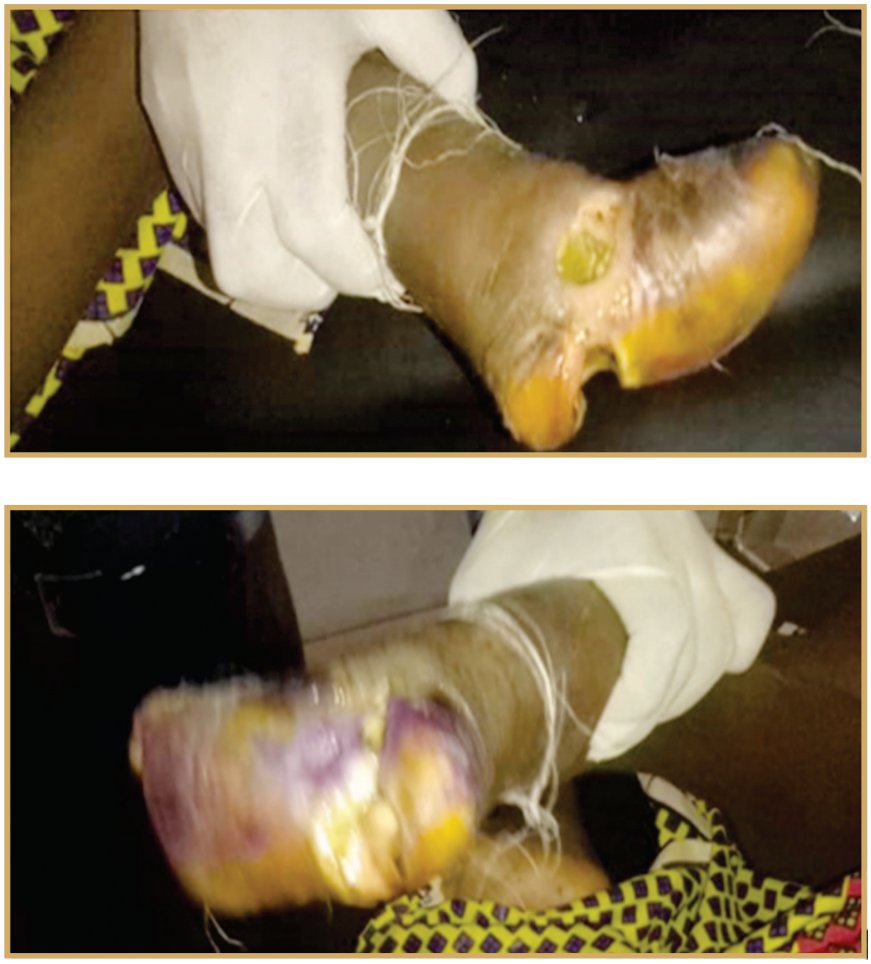
et al 2018). We present a case of a 4-year-old male child with leprosy whose treatment was hampered by ignorance and traditional beliefs resulting into a below-knee amputation of the left lower limb which will probably condemn the child to a life with disability.

Case Report

O.K is a 4-year-old male child born into a polygamous home in a rural community in Southwestern Nigeria. Both parents were peasant farmers with primary level of education and his mother is the second of the two wives. At the age of 3 years, O.K. developed skin eruptions mostly in the limbs, which were treated with local herbs. About ten months later, he developed a persistent fever and anorexia and he was taken to a secondary healthcare facility for in-patient care where he was treated for septicemia. The presence of skin patches and deformity of the digits suggesting Leprosy prompted a referral to the Local Government Tuberculosis & Leprosy (LGTB&L) Control unit for further evaluation and



BEFORE SURGERY

Fig.1: Gangrenous foot of the child before surgery.

AFTER SURGERY

Fig. 2 : After below-knee amputation.

management. There, a slit skin smear (SSS) was positive for acid-fast bacilli (AFB), confirming an active multibacillary leprosy case. Pre-treatment counselling was done and O.K. was commenced on MDT in line with the National Guidelines for Management of Leprosy (NTBLCP 2020) on 29th November, 2023. The mother agreed to bring other members of the family for screening.

After two visits, the mother stopped bringing O.K. for follow-up and abandoned the MDT. She claimed a traditional healer had attributed her child's illness to a curse placed on him by the other wife. Due to this misinformation, the mother resorted to local traditional treatments offered by the healer.

The family was traced and located after two

months of missing MDT treatment. He appeared lethargic, pale, toxic, and dehydrated. He was taken to the hospital and admitted overnight for a blood transfusion. The next day, he was referred to the Leprosy Referral Centre due to a gangrenous foot (Fig. 1). At the centre, a below-knee amputation was performed to save his life and he was recommenced on MDT. The post-operative period was uneventful and the child was discharged home once the wound had healed (Fig. 2). All of his family members were tested for leprosy, and their results were negative.

Discussion

Early diagnosis and prompt treatment of childhood leprosy is the mainstay of the management of leprosy and prevent permanent and progressive deformities associated with the disease (Maymone et al 2020). In the case of our patient, diagnosis was not made early because the mother did not recognize the skin lesions as signs of leprosy. She was treating the lesions with local herbs until the child developed complications. The hospital where the child was initially treated only suspected the diagnosis. They needed to refer him to the LGTB&L Control Centre where the diagnosis was confirmed. It is therefore important to create awareness in the community about the early signs and symptoms of leprosy so that the people can easily identify any individual with leprosy on time and this will promote early presentation and prompt treatment at the treatment centers (Lana et al 2013).

It has been established that MDT is effective and can prevent the progression of the disease as well as permanent and progressive deformities when started early (WHO 2023). Our patient did not receive MDT on time, leading to the development of a hand deformity before treatment commenced. The deformities in leprosy are not reversible, some may not be correctable and they worsen the stigma and discrimination that patients suffer as a result of the disease.

Free medications and Direct Observed Therapy (DOT) use in the treatment of leprosy has greatly improved adherence to the treatment which usually lasts for six to twelve months depending on the type of leprosy (Pepito et al 2023). However, some factors are still affecting adherence to the medication. The perception of the patients about the cause of leprosy is a factor affecting adherence to treatment (Pepito et al 2023). Some patients believe that leprosy is caused by an attack from an evil spirit and the only solution is to offer sacrifice to appease the evil spirit. Such patients may not adhere to the treatment modality despite free medications (Amole et al 2024). This played out in our patient whose mother stopped his medication and refused to take him back to the LGTB&L unit. Her belief that the disease was a result of a spiritual attack from the first wife made her abandon the MDT and consult a traditional healer. It is therefore important that once a person is diagnosed to have leprosy, proper counselling and health education should be done to the patient and family members about the cause and treatment of leprosy. This will help them to do away with misconceptions about the cause of leprosy and other factors, and this ensure compliance to the medication. Family and community should be targeted for raising the awareness about symptoms and signs of the disease so that early appropriate treatment is ensured and disabilities are prevented.

Disability is one of the causes of social stigma in leprosy (Adhikari et al 2013, Pradhan et al 2019). Disabilities and deformities frequently persist even after completing MDT and can affect their education (Narang & Kumar 2019). Our patient who is four years old may have challenges getting enrolled in school because of the fear of transmitting the disease to other children in

school. Their neighbours may also prevent their children from playing with him because of the fear that their children may contract the disease from him.

Apart from the mobility problem that our patient may face as a result of below-knee amputation, he is also at risk of developing terminal overgrowth of the bone of the stump. This may require multiple revisions of the stump.

Conclusion

The presence of childhood leprosy is an indicator of active disease transmission in the community. Ignorance and traditional beliefs are some of the factors responsible because they affect treatment and adherence to the medication among adults and children. There is a need to intensify health education on the actual cause of leprosy and the effective treatment for the disease.

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