

CASE REPORT

Leprosy presenting as a non-healing ulcer and associated unusual myth

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Summary A case of a 70 year old lady with borderline tuberculoid leprosy who presented with a chronic ulcer and associated myth has been illustrated. The need for awareness programmes focusing on these types of myths has been stressed.

Introduction

Diseases and myths go hand in hand. Various factors like low education status and poor reach of awareness programmes form an ideal breeding ground for these ever flourishing myths. We report a leprosy patient with an unusual myth which led to a delay in the seeking of medical assistance.

Case report

A 70 year old lady from a distant remote area accessed our dermatology clinic with a complaint of a chronic ulcer over her left leg present for the past 3 years. The ulcer started as a blister which ruptured spontaneously to reveal the ulcer, which gradually enlarged to reach the present size. There were periods of partial healing followed by exacerbation in the form of blistering. The patient sought medical help on a few occasions mostly from quacks but the

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diagnosis could not be established and patient was not referred for a formal diagnosis. The patient received multiple courses of oral and topical antibiotics, with partial improvement in the ulceration. On enquiry, the patient revealed a history of cooking food and sitting near a chulha (a stove used for cooking in a traditional Indian kitchen, in which the fire is quite close to the leg of the cook). Decreased sensations in the cutaneous leg patch (of which she was not actually aware - it was subsequently found on physical examination), and being involved in cooking on the chulha, she was vulnerable to unnoticed burns. There was no past or family history of Hansen's disease.

Interestingly, the patient had a tuft of hair tied to her leg near the blister (Figure 1).

On enquiry, the patient revealed that those hairs were from her daughter-in-law's scalp. She believed that these hairs would protect her from recurrent blistering as she believed that she was developing these ulcers due to encountering a witch and that these hairs would keep the witch away. The patient had been following this procedure for more than 2 years. Past generations of her family had similarly followed the practice. This myth was found to be prevalent in her community, where women used their daughter-in-law's hair to protect them from various diseases like this which they believed to be due to witches. This patient was illiterate, as were her husband and children. Psychiatric evaluation was normal.

On examination, there was the presence of crusted erosion over the anterior aspect of the left leg. There was a hypopigmented macule with loss of hair in the background of the erosion (Figure 1). The macule had 90% loss of sensation to touch and pain and temperature sensations were completely lost. Six similar hypopigmented and hypoaesthetic macules were present over the left leg and thigh with a few showing satellite lesions. The left common peroneal nerve was firm, thickened but non tender. There was no sensory or motor loss in the nerve distribution or glove and stocking anesthesia. There were no lesions elsewhere in the body. Mucosal examination was within normal limits. Systemic examination was normal.

A slit skin smear from the lesion did not reveal any acid fast bacilli. Histopathology revealed the presence of well-defined epithelioid granulomas with destruction of the appendages. An AFB stain showed 1 + bacilli. A diagnosis of borderline tuberculoid leprosy was made and the patient was started on WHO 1-year MBMDT. She successfully completed the treatment without any reactions. During her follow-up visits she was eventually convinced that her belief was actually a myth and she removed the hairs from her leg. The ulcer healed with scarring.



Figure 1. Blisters and well defined crusted erosion in the background of a hypopigmented macule with loss of hair and a tuft of hair tied around the leg.

Discussion

The Oxford dictionary defines myth as 'a widely held but false belief or idea'. Disease and myths have a long historical relationship. Several dermatological diseases like acne, vitiligo, psoriasis, leprosy etc. have always been associated with myths. However, with the lack of studies ascertaining the prevalence and types of myths prevalent in society, it is difficult to quantify the burden in our society.

In developing countries like India, various factors like age-old cultural beliefs, social obligations, low level of education, and poor reach of awareness programmes have led to the passing of these myths from generation to generation. Due to these factors patients, (especially from rural backgrounds), prefer not to consult qualified doctors but seek treatment from spiritual leaders, hakims (untrained doctors) or quacks.¹ Even for severe systemic diseases like diabetes, cancer and mental illnesses, performing hawans, pujas (kinds of religious ceremonies) and going to faith healers for treatment are still common health-seeking modalities in the community.^{2,3}

Various myths regarding TB have also been reported.⁴ Myths are not just limited to developing countries or illiterate people. Despite no significant scientific evidence, various myths regarding the role of diet in acne have persisted even among medical students in developed countries like Australia.⁵

The practice of applying ghee (clarified butter) heated with dried cow dung was found to be significantly associated with neonatal tetanus, which results from contamination of the umbilical wound with spores of *Clostridium tetani* which is commonly found in soil and cattle droppings.⁶ In mountain villages of northwestern Pakistan, dried cow dung (which is esteemed to convey beneficial 'heat' and 'strength') is used, although it too has been found to contain bacteria that causes neonatal tetanus. The baby's unhealed umbilical cord provides a portal for infection and the resultant toxins cause death.⁷

Various myths in relation to leprosy, like burning the hypoaesthetic area or tattooing the affected area with an intention to control the spread of a patch, are prevalent. The tuft of hair was tied close to the site of the wound. The wound was not being cleaned properly and the patient suffered repeated infections which were likely to have delayed the healing despite multiple courses of antibiotics. Her belief in the myth, furthermore, made the patient consider that a witches' shadow was the cause of her illness rather than leprosy; this prevented the patient from seeking medical help thus delaying the correct diagnosis and treatment. Moreover, the practitioners whom she consulted also failed to diagnose or refer her for formal diagnosis. This belief, which had been adhered to for generations in the patient's family, was also prevalent in the local community. It is a significant issue when it affects a person with leprosy as an untreated patient can be a reservoir of infection for family members and other contacts. It took a lot of effort on our part to convince the patient and the family that recurrent unnoticed burns were occurring because of hypoaesthesia in the leprosy lesions. It is imperative for disease control programmes, like the leprosy elimination programme, to address such myths so that patients do not delay presentation and consequently suffer worsening of morbidity. Moreover, individualised health education dealing with patients' perception of the cause of common diseases and targeting the personal approach to management are paramount. For that to happen, further studies also need to be performed and more frequent reporting of such myths needs to be done for better understanding among health care professionals and programme designers. We suggest that only an improvement in

the level of education, coupled with awareness programmes, can break the chains of these continuing myths.

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