

ABSTRACT

Introduction

Leprosy mainly affects skin and nerves. Involvement of nerves causes serious disabilities and deformities. Clinical assessment of nerves is very subjective. High resolution ultrasonography of nerves serves as an important objective method of evaluation of peripheral nerves.

Aims and Objectives

The aim of this study was to study the clinical spectrum of leprosy patients and to assess the peripheral nerves clinically and then through high resolution ultrasound. To correlate the ultrasound findings with clinical findings.

Materials and method

In this observational study, 30 newly diagnosed leprosy patients and 30 age and sex matched controls were included. An informed written Consent, detailed clinical history, thorough clinical examination and routine investigations were done for patients. Ultrasound and colour Doppler examination were done for both patients and controls. All the data obtained were analysed statistically.

Results

Out of 30 patients studied, males and females were in the ratio of 3:2 with mean age of 34.9 years. 14 patients were in Borderline tuberculoid , 6 in Borderline lepromatous , 5 in Lepromatous and 5 in pure neuritic leprosy. Ulnar nerve (62%) was most frequently involved. The nerves were significantly thicker in the leprosy patients with higher mean cross sectional area when compared to controls. (ulnar $p < 0.005$) . Colour Doppler showed increased vascularity in 13 nerves of patients with reactions. Positive Correlation was observed for clinical thickness of nerve and ultrasound findings like cross sectional area and echotexture ($p < 0.05$).

Conclusion

High resolution ultrasound and colour Doppler examination of peripheral nerve could be a useful technique in diagnosis and follow up of leprosy patients. This study emphasizes the importance of ultrasound of nerves as an additional tool in management of leprosy patients.

Keywords: High resolution ultrasound of nerves, Colour Doppler of nerves, Nerves in leprosy, Leprosy