

## Clinical Image

# Early Stage of Claw Hand in a Case of Leprosy

Rahul Dey<sup>1</sup>, Anish Banerjee<sup>2</sup>, Sudeshna Ganguly<sup>2</sup>, Sabahat Azim<sup>2</sup>, and Sujit K. Bhattacharya<sup>2\*</sup>

<sup>1</sup>Department of Neurosciences, Peerless Hospital, India

<sup>2</sup>Department of General Medicine, Glocal Hospital, India

## CLINICAL IMAGE

Leprosy is an infectious disease transmitted by person to person contact. There are two types of manifestation-Tuberculoid and Lepromatus. In lepromatus variety, skin and soft tissue are more affected causing disfigurement and in the tuberculoid form, nerves are mostly affected and cause Claw hand. Leprosy is curable disease. Multi-drug therapy cures leprosy. Surgery, Steroids, chloroquin and steroids are required in selected cases. This disease causes stigmatization.

According to official reports received from 138 countries from all WHO regions, the global registered prevalence of leprosy at the end of 2015 was 176 176 cases (0.2 cases per 10 000 people. The number of new cases reported globally in 2015 was 211 973 (2.9 new cases per 100 000 people). In 2014, 213 899 new cases were reported, and in 2013, 215 656 new cases. The number of new cases indicates the degree of continued transmission of infection. Global statistics show that 199 992 (94%) of new leprosy cases were reported from 14 countries reporting more than 1000 new cases each and only 6% of new cases were reported from the rest of the world.

Leprosy is a long-term infectious disease by the bacterium



**Figure 1** Claw hand in a patient of Leprosy (tuberculoid form).

### \*Corresponding author

Sujit K. Bhattacharya, Department of General Medicine, Glocal Healthcare Systems Pvt. Ltd, Kolkata-700156, India, Email: sujitkbhattacharya@yahoo.com

Submitted: 08 January 2018

Accepted: 22 January 2018

Published: 25 January 2018

ISSN: 2475-9430

Copyright

© 2018 Bhattacharya et al.

OPEN ACCESS

### Keywords

- Leprosy
- Claw hand
- Deformity
- Rifampicin
- Multi-drug treatment

*Mycobacterium leprae*. Initially, there are no symptoms for 5 to 20 years after infection (asymptomatic). Symptoms that develop include granuloma of the nerves, respiratory tract, skin, and eyes. The soft mucosa inside the nose is affected by this infection. The disease spreads by close skin contact (person to person transmission) [1-3]. It is not as contagious as earlier belief. This disease may result in a lack of ability to feel pain, thus loss of parts of extremities due to repeated injuries or infection due to unnoticed wounds. Weakness and poor eyesight may also be present.

The disease is associated with stigma. Hence, it is also called Hansen's disease after the name of Dr. Hansen who discovered the microorganism in Norway [4,5]. Besides clinical presentation, the disease can be confirmed by demonstration of *Lepra bacilli* form tissues taken from the patient. There are two [4] types of Leprosy-tuberculoid and lepromatus. In tuberculoid leprosy, the nerves are primarily affected. Whitish skin patches are seen. Claw hand is seen in tuberculoid form. The Great auricular nerves become prominent and ulner nerve in the olecrenon fossa is thick and tender. On the other hand in the lepromatus leprosy, the skin and soft tissue are affected and disfigurement is common.

Leprosy is curable with a treatment of combination for several drugs "known as multi-drug therapy". Leprosy elimination programme has been initiated on the basis of effectiveness off multi-drug Treatment is by chemotherapy and occasionally surgery is required. Dapson, Rifampicin and Clofazimine are used. For Lepra reaction, Chloroquin, Clofazimine and Steroid may be used. The WHO states that diagnosis and treatment with MDT are easy and effective, and a 45% decline in disease burden has occurred since MDT has become more widely available. It is emphasized about the importance of fully integrating leprosy treatment [6] into public health services, effective diagnosis and treatment, and access to information. BCG vaccination gives some protection from leprosy.

## REFERENCES

1. Hastings RC. Transfer factor as a probe of the immune deficit in lepromatous leprosy. 1977; 45: 281-291.
2. deVriesRRP,OttenhoffTHM.Immunogeneticsofleprosy.In:RCHastings (Edn) Leprosy. 2<sup>nd</sup> edn. Churchill Livingstone, Edinburgh; 1994: 113-121.
3. Abel L, Sánchez FO, Oberti J, Thuc NV, Hoa LV, Lap VD, et al. Susceptibility to leprosy is linked to the human NRAMP1 gene. J Infect Dis. 1998; 177: 133-145.
4. World Health Organisation. Progress towards leprosy elimination. Wkly Epid Rec. 1998; 73: 153-156.
5. WHO Expert Committee on Leprosy. Seventh report (*WHO Tech Rep Ser* no 874). WHO, Geneva; 1998.
6. Khanolkar-Young S, Rayment N, Brickell PM, Katz DR, Vinayakumar S, Colston MJ, et al. Tumor necrosis factor alpha (TNF-alpha) synthesis is associated with the skin and peripheral nerve pathology of leprosy reversal reactions. Clin Exp Immunol. 1995; 99: 196-202.

### Cite this article

Dey R, Banerjee A, Ganguly S, Azim S, Bhattacharya SK (2018) Early Stage of Claw Hand in a Case of Leprosy. *Ann Clin Cytol Pathol* 4(1): 1091.