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ANSWER: CLAW HAND SECONDARY TO ULNAR AND MEDIAN NERVE PALSY IN LEPROSY.

Clawing of all 4 fingers and wasting of the interossei muscles is seen in the top image of Figure 1, while thenar muscle wasting, trophic changes at the tip of ring finger and healed incision and drainage site at the tip of middle finger can be seen in the lower image. In addition, the patient was also found to have thickened right ulnar nerve at the elbow.

Leprosy (Hansen disease) is a chronic infectious disease caused by *Mycobacterium leprae* and characterised by skin lesions and peripheral neuropathy. Disability in leprosy primarily arises from the resultant deformities secondary to neural damage.¹ Repeated inflammation and reactive regenerative process causes demyelination, axonal damage and an increase in nerve thickness. In active disease, the nerve is enlarged and painful on palpation.¹

Claw hand is caused by imbalance between strong extrinsic (long flexor and extensors) and deficient intrinsic muscles (interosseous and lumbrical muscles) and is characterized by hyperextension at the metacarpophalangeal (MCP) joint and flexion of the proximal and distal interphalangeal (PIP and DIP) joints.²

Due to median and ulnar nerve palsy there is loss of intrinsics, which are responsible for flexion of the MCP and extension of IP

joints. There is unopposed action of the extensor digitorum communis (extension of MCP joint) and flexor digitorum profundus and sublimis (flexion of DIP and DIP joints).²

Any condition that may lead to ulnar and median nerve palsy can cause claw hand. The systemic diseases that can cause ulnar and median nerve palsy include leprosy, syringomyelia, and Charcot-Marie-Tooth disease.³ Other differential for claw hand includes Dupuytren contracture characterised by flexion contracture of the MCP and PIP joint and brachial plexopathy.³

REFERENCES

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