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CASE LETTER

A new diagnostic sampling method in pure neural leprosy: the scraping of the myelin sheath☆,☆☆

Dear Editor,

Pure Neural Leprosy (PNL) is a form of leprosy characterized by neural involvement without any skin lesions.[1] PNL affects about 3%–10% of patients with leprosy and it can occur in any spectrum, although it is more frequent in the tuberculoid type.[2] We present a case of a patient affected by PNL diagnosed through the scraping of myelin sheaths of the ulnar nerve, Ziehl-Neelsen (ZN) staining, and Polymerase Chain Reaction (PCR).

A 78-year-old man, a professional missioner in the Philippines and Papua New Guinea, has presented sensory loss (touch, pain, and temperature) of left foot and pain of left hand present over a period of 4 years. A physical examination revealed dorsal flexion deficit of the left foot, superficial paraesthesia, and dysesthesia of toes associated with impaired deep sensitivity. In addition, he presented paraesthesia and dysesthesia to the IV and V fingers of the left hand. The left ulnar nerve was palpable and enlarged on the left elbow and no cutaneous lesions were found. The research of Acid-Fast Bacillus (AFBs) in the nasal swab and the slit skin smears from earlobes and left elbow was negative. Motor and sensory action potential of the left ulnar nerve, left peroneal nerve, left anterior and posterior tibial nerves are suggestive of mono-neuritis multiplex. Magnetic Resonance Imaging (MRI) of the left elbow showed the enlarged ulnar nerve partially damaged by entrapment within the fibro-osseous tunnel. Neurosurgery allowed the debridement of the ulnar nerve and, at the same time, the scraping of the perineural tissue. ZN stain and PCR of the scraping were positive for the presence of *M. leprae* and the diagnosis of tuberculoid leprae with PNL was made. Antibodies against phenolic glycolipid-1 antigen (anti-PGL antibody) were negative. A therapy based on a combination of three drugs (rifampicin 600 mg once a month, dapsone 100 mg daily, and clofazimine 300 mg once a month and 50 mg daily) associated with prednisone 25 mg and gabapentin 300 mg (2 cp/die) was started with improvement of symptoms.

To the best of our knowledge, this is the first case of PNL diagnosed through scraping, ZN staining, and PCR test. Scraping is a technique that allows obtaining a clinical specimen rubbing a part of the body, in our case myelin sheaths of a nerve. The surface is scraped with a 15 Bard-Paker blade held at a right angle to the incision. Upon scraping, perineural tissue is obtained and examined by ZN staining and PCR test. Traditionally, diagnostic criteria for the diagnosis of PNL consist of nerve tissue samples obtained out of a nerve biopsy, analysis of PCR, and measure of anti-PGL-1 antibody levels.[3] However, the invasive procedure of nerve biopsy was criticized by Abhishek De et al. because it has a high rate of complications.[4] They proposed a simple technique of FNAC coupled with PCR in a pilot study[4] and they confirmed its efficacy in a 4-year study.[5] In our case, we did not use the technique of FNAC because an invasive procedure, surgery, was required to solve the compression of the ulnar nerve in the cubital tunnel. However, the scraping of the myelin sheath is a simple tissue sampling method during surgical procedures with less risk of nerve damage.

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Authors' contributions

Ilaria Trave: Conception and planning of the study; elaboration and writing of the manuscript; approval of the final version of the manuscript; obtaining, analyzing, and interpreting the data; effective participation in research orientation; intellectual participation in propaedeutic and/or therapeutic conduct of the cases studied; critical review of the literature; critical review of the manuscript.

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Conflicts of interest

None declared.

References

1. de Freitas MR, Said G. Leprous neuropathy. Handb Clin Neurol. 2013;115:499–514.
2. Girdhar BK. Neuritic leprosy. Indian J Lepr. 1996;68:35–42.
3. Jardim MR, Antunes SL, Santos AR, Nascimento OJ, Nery JA, Sales AM, et al. Criteria for diagnosis of pure neural leprosy. J Neurol. 2003;250:806–9.
4. Reja AH, De A, Biswas S, Chattopadhyay A, Chatterjee G, Bhattacharya B, et al. Use of fine needle aspirate from peripheral nerves of pure-neural leprosy for cytology and PCR to confirm the diagnosis: a pilot study. Indian J Dermatol Venereol Leprol. 2013;79:789–94.
5. De A, Hasanoor Reja AH, Aggarwal I, Sen S, Sil A, Bhattacharya B, et al. Use of Fine Needle Aspirate from Peripheral Nerves of Pure-neural Leprosy for Cytology and Polymerase Chain Reaction to Confirm the Diagnosis: A Follow-up Study of 4 Years. Indian J Dermatol. 2017;62:635–43.

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Axillary papules: an uncommon location of lichen nitidus☆,☆☆

Dear Editor,

Lichen nitidus is a relatively rare, chronic, papulosquamous cutaneous disease that is characterized by multiple flesh-coloured shiny, dome-shaped papules, with sizes from 1 to 2 mm, often referred as pinhead-like papules.[1] The crop of the lesions often is asymptomatic; moreover, it sometimes may associate with pruritus.[1] This uncommon condition was described for the first time by Pinkus in 1901.[2] The skin is the primary site involved but the mucous membranes and nails also might be affected.[3]

No racial or sex predilection is reported, although the majority of cases appear to arise in children and young adults.[1,4] There are located and generalized forms of lichen nitidus, sometimes described under clinical variants: familiar, actinic, confluent, vesicular, hemorrhagic, palmo-plantaris, mucous, spinulosus and follicularis, keratodermic, perforating or linear.[2,5] The lesions are located preferentially on the flexor surface of the arms, wrists, on the abdomen and genitalia, though they can become disseminated.[5] We are adding to the indexed literature the second case of lichen nitidus exclusively located on both axillae.

The patient is a 26-year-old Caucasian man who was seen for evaluation of asymptomatic lesions on the both axillae; the lesions had been present more than 4-years and showed insidious emergence. He denied previous treatment on the lesions or any medication intake preceding the crop of the lesions. On his dermatological exam, discrete or grouped skin-colored, shiny, firm, monomorphic round, and dome-topped papules of 1-to 3-mm in diameter were observed on both axillae (Fig. 1).

A skin biopsy was performed from these lesions, and that displayed a lymphohistiocytic infiltrate in a broadened dermal papilla, with a descending growth of the rete ridges surrounding the dermal inflammatory infiltrate in a ''ball-and-claw'' manner (Figs. 2 and 3). The overlying epidermis was noted to be unremarkable, and there was no evidence of spongiosis or exocytosis.

The patient was treated with the combination of dexchlorpheniramine 2 mg and betamethasone 0.25 mg t.i.d per os for 10-days, and after thatt he was virtually clear of lesions.

There is only one report of lichen nitidus on axillae.[3] Our patient displayed lesions only in this area, emphasizing the peculiar aspect of our report. Once considered as a tuberculoid reaction, lichen nitidus is currently regarded as a disorder of unknown origin. The differential diagnosis includes lichen planus, psoriasis, verruca plana and

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