Scholars Journal of Medical Case Reports **ISSN 2347-6559 (Online)**
Sch J Med Case Rep 2016; 4(2):77-79 **ISSN 2347-9507 (Print)**

(An International Publisher for Academic and Scientific Resources) DOI: 10.36347/sjmcr.2016.v04i02.007

A Rare Presentation of Nerve Abscess: A Case Report

Santosh M Patil[1], Sumeera Farhath SK[2], V. Ashok Kumar[3]
[1]Associate Professor, [2]Resident, [3]Professor and Head, Department of General Surgery, MNR Medical College, Sangareddy, Telangana-502294, India

***Corresponding author**
Dr. Sumeera Farhath Sk
Email: sumeerafarhath@gmail.com

Abstract: We are presenting a rare case of pure neuritic leprosy presenting as a cold abscess involving the left Ulnar nerve. It was associated with a claw hand deformity.A preoperative diagnosis of a neurofibroma was made but the intraoperative findings were unexpected. Intra-operatively thick cheesy material was seen from the swelling which was adherent to the left Ulnar nerve. On histopathological examination the picture was consistent with that of tuberculoid leprosy.
Keywords: Caseous necrosis, Granulomatous infection, Leprosy, Nerve abscess, Pureneuritic leprosy, Tuberculoid leprosy

INTRODUCTION

Leprosy caused by Mycobacterium leprae bacilli is a chronic granulomatous disease mainly involving the skin and peripheral nerves. Skin involvement is characterized by hypoaesthetic patches and the involved peripheral nerves are enlarged. The clinical signs and symptoms vary with the host immunity. Pure involvement of a nerve without any skin lesions is rare and as such the diagnosis is often delayed. Hence, a high clinical suspicion is warranted for early diagnosis and prompt treatment.

CASE REPORT

A 28 yr old male, presented with two swellings on the inner aspect of the left arm. One of them was noticed 3years ago and it was slowly progressing in size. It was followed by another swelling below it 1 year ago. They were associated with increasing weakness and deformity involving the left little and ring fingers. The swellings were painless and not associated with any skin changes or any discharge.

However the deformity and weakness of the right hand increased and was associated with numbness and tingling along the medial border of the forearm.

On clinical examination two distinct vertically oval swellings, one measuring 6x3cm and another 3x2cm were seen about 2cm above the left elbow .They were well defined, smooth surfaced with variable consistency. They were non-tender and mobile in transverse direction.

So, clinically a diagnosis of neurofibroma was made .But the cytology and ultrasonography were not concordant.

The ultrasonography revealed a subcutaneous mass lesion with mixed echogenecity and specs of calcification suggestive of a lipoma or a neurofibroma. The cytology showed caseous necrotic material with ill defined granulomas. Excision biopsy was planned for the same.

During the procedure a capsulated mass was seen abutting the ulnar nerve. To preserve the nerve deroofing was done which revealed thick yellow caseous material.

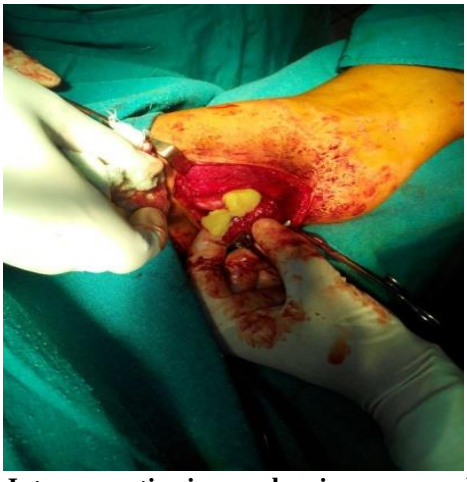

Fig.1: Intra operative image showing caseous cheesy material

All the caseous material was aspirated and the wound closed primarily with a drain insitu. The post-operative recovery was uneventful. However, there was no improvement noticed in the claw hand deformity post surgery.

The histopathological examination revealed a picture of nerve abscess in tuberculoid leprosy with caseating granulomas, epitheloidcells, giant cells and degenerated nerve fibres. AFB staining was negative for bacilli.

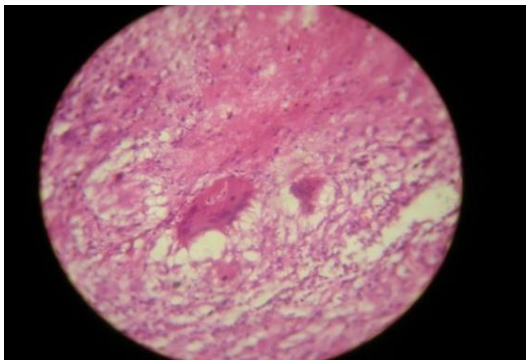

Fig. 2: Histopathology revealing giant cells

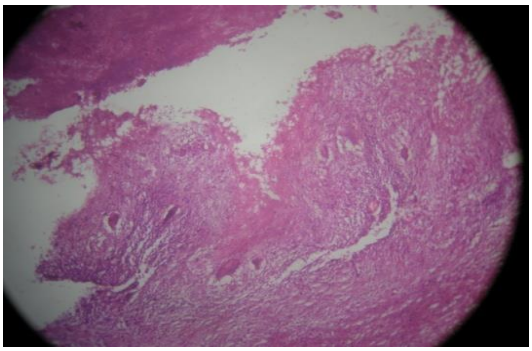

Fig.3: Histopathology showing caseous necrosis and degenerated nerve fibres

So, this is a rare case of neuritic leprosy presenting as a long standing cold abscess involving the ulnar nerve.

DISCUSSION

Leprosy is a chronic granulomatous infectious disease caused by Mycobacterium leprae. It involves the skin and the peripheral nerves. The spectrum of leprosy varies from tuberculoid to lepromatous forms.

It includes tuberculoid (TT), borderline tuberculoid (BT), borderline (BB), borderline lepromatous (BL) and lepromatous leprosy (LL) according to the Ridley-Jopling classification. Cases presenting with only nerve involvement are termed as pure neuritic, poly neuritic or primary neuritic leprosy (PNL) [1]. It's seen in patients with good immunity. In Indian studies, the incidence of PNL ranges from 4.3% to 10.7% and the frequency in South India is even higher; up to 18% among the newly diagnosed cases[2].

In a retrospective analysis of 686 patients of leprosy, nerve abscess was observed in four cases[3].

Formation of nerve abscess mainly occurs in tuberculoid or borderline tuberculoid leprosy, although reports in other forms of leprosy also exist[4,5].

Presentation as nerve abscess without clinically evident neurological deficit is seldom seen among PNL cases.

Nerve abscess or segmental necrotizing granulomatous neuritis is formed by coalition of areas of caseous necrosis within nerve granulomas[6].

The nerve is commonly involved for two or more inches and adherent to surrounding structures, with the contents of the abscess being cheesy [7].

Nerve abscesses have been reported most commonly in the ulnar nerve (57·9% and 74·3%) followed by cutaneous nerves of upper and lower limbs, peroneal nerve and median nerve[4,8].

The differential diagnoses in cytological point of view include soft tissue tumors like schwannoma and neurofibroma, parasitic cyst and sporotrichosis [1,9,10,11].

Surgical drainage of the abscess along with multiple drug therapy is the most appropriate treatment option for these patients. Corticosteroids have also been used in few cases [4,12,13].

The case we are reporting is a rare case as the patient presented only with a swelling and a neurological deficit with no skin lesions or any history suggestive of impaired immunity. So, the presentation made it difficult to diagnose. The surgical decompression as the treatment of choice was given but due to the prolonged history of over 3 years with degeneration of the nerve fibres made it difficult to correct the associated neurological deficit.

CONCLUSION

Hence a nerve abscess as the presenting manifestation of leprosy is rare, and a high clinical suspicion is required especially in endemic regions.

High-resolution ultrasound and a simple FNAC can play an important role in the management of patients with pure neuritic leprosy. They can aid in the early detection which is important to prevent permanent neurological deficit.

REFERENCES

1. Kumar B, Pradhan A; Fine needle aspiration cytology in diagnosis of pure neuritic leprosy. Patholog Res Int.,2011; 158712.
2. Sharma KV, Malhotra AK; Leprosy: Classification and clinical aspects. In: Valia RG, Valia AR, editors.IADVL Text Book of Dermatology. 3rd ed. Mumbai: Bhalani Publishing House; 2008; 2044–5.
3. Mendiratta V, Khan A, Jain A; Primary neuritic leprosy: a reappraisal at a tertiary care hospital. Indian J Lepr, 2006; 78: 261–267.
4. Salafia A, Chauhan G; Nerve abscess in children and adults leprosy patients: analysis of 145 cases and review of the literature. ActaLeprol, 1996; 10: 45–50.
5. Kumar P, Saxena R, Mohan L et al; Peripheral nerve abscess in leprosy: Report of twenty cases. Indian J Lepr, 1997; 69: 143–147
6. Porichha D, Natarajan M; Pathological aspects. In: Kar HK, Kumar B, editors. IAL text book of leprosy.1st ed. New Delhi: Jaypee Brothers Medical Publishers; 2010; 106.
7. LOWE, John;Nerve Abscess in Leprosy; Indian Medical Gazette, 1929;64(1): 24-25.
8. Chauhan SL, Girdhar A, Mishra B et al; Calcification of peripheral nerves in leprosy. ActaLeprol, 1996; 10: 51–56.
9. Siddaraju N, Yaranal PJ; Use of fine needle aspiration cytology in leprotic lesions: A report of 4 cases.ActaCytol., 2007;51:235-8.
10. White LE, Levy MR, Alam M;Neoplasia and hyperplasia of muscular and neural origin. In: Wolff K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell D, editors. Fitzpatrick's dermatology in general medicine. 7th ed. New York: McGraw Hill; 2008; 1178–9.
11. Wilder-Smith E; Diagnosis of pure neuritic leprosy. Neurol J Southeast Asia, 2002;7:61-3.
12. Sharma VK, Dutta B, Khandpur S; Greater auricular nerve abscess in borderline tuberculoid leprosy masquerading as jugular vein thrombosis. J Assoc Physicians India, 2006; 54: 585–587.
13. Kumar GR, Ramana PV, Vasundhara N, Reddy MK; Two unusual nerve abscesses - lepromatous leprosy and pure neural leprosy: case reports. Lepr Rev, 1996; 67: 217–221.