

NON HEALING POST SURGICAL WOUND DUE TO ATYPICAL MYCOBACTERIAL
INFECTION IN IMMUNOCOMPETENT PATIENT TREATED BY CONSERVATIVELYSarkar K.¹, Gonjhu D.², Pramanik N.³ and Saha B.⁴^{1,2}M. B. B. S., MD, Assistant Professor, Tropical Medicine, School of Tropical Medicine, Kolkata.³M. B. B. S., DTM & H, MD, Associate Professor, Tropical Medicine, School of Tropical Medicine, Kolkata.⁴M. B. B. S., DTM & H, MD ³Professor & Head, Department of Tropical Medicine, School of Tropical Medicine, Kolkata.

*Author for Correspondence: Dr. Sarkar K.

M. B. B. S., MD, Assistant Professor, Tropical Medicine, School of Tropical Medicine, Kolkata.

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ABSTRACT

Surgical wound infection with nontuberculous mycobacteria (NTM) is uncommon and its diagnosis can be missed unless there is strong clinical suspicion along with microbiological confirmation. We report a case of localized soft tissue swelling of left foot and leg following an operation of enchondroma of left 4th toe followed by bone grafting from left tibia by non-tuberculous *Mycobacterium* infection in a healthy adult male. The case is being reported for its uncommon clinical presentation and the associated etiological agent. The patient successfully treated with ethambutol, levofloxacin and clarithromycin.

KEYWORDS: Cutaneous infection, post surgical wound, NTM.

INTRODUCTION

NTM which include *Mycobacterium fortuitum* and *M. chelonae* are rapidly growing mycobacteria, widely distributed in nature like natural water, tap water, soil and water used in showers and surgical solutions.^[1] This infection manifest as variety of cutaneous infection, systemic organ involvement and rarely disseminated disease.^[2] Such infections require specific diagnosis as they do not responded on treatment with the routine anti-tuberculous drugs used for treating *Mycobacterium tuberculosis* infections.^[3] We report a case of post surgical wound infections in immunocompetent person, who presented with delayed wound healing, discomfort over site of incision and chronic serous discharge. The causative agent may be missed unless a direct Ziehl Neelsen (ZN) stain for acid fast bacilli and culture on Lowenstein Jensen (LJ) media is done from all chronic post surgical wound infections, as routine aerobic cultures are sterile and antibiotics for pyogenic infections do not work satisfactorily.

CASE REPORT

A 30-years old healthy male from middle class family presented in our OPD on October, 2012 with complaining of nonhealing surgical wound over left 4th toe and tibia following an operation of enchondroma of left 4th toe followed by bone grafting from left tibia on August, 2012. The patient had mild pain over the lesions which was associated with mild serosanguinous discharge from one month postoperative period. He had no fever or

any other symptoms. He had no significant past medical history. On examination, the wound was mildly inflamed with mild serous discharge (Fig 1). There was no deep tenderness over underlying bone. His hemogram and blood biochemistry was normal. He accidentally found to have dextrocardia. His x-ray foot after operation was normal. Initially the discharge from the lesions did not show any AFB. We did biopsy from the surgical wound which showed inflammatory granulation tissue, epithelioid granulomas with langhan's and foreign body giant cell (Fig 3). Special stain for fungus was negative and AFB was found. Then we took scraping from the wound which showed AFB (Fig 4) and PCR confirmed the diagnosis of NTM and BACTEC culture showed growth within five days of inoculation without any pigment formation. Tests for species identification and drug sensitivity were not available in our institute during that time. So we started empiric treatment with clarithromycin and amikacin. The patient responded completely after one month of treatment (Fig 2) and we advised him to continue the treatment for another two weeks.

**Fig 1.****Fig 2.****Fig 3.****Fig 4.****Legends of Figures**

Fig 1: Post surgical wound before treatment.

Fig 2: Post surgical wound after treatment.

Fig 3: Biopsy showed inflammatory granulation tissue, epithelioid granulomas with langhan's and foreign body giant cell.

Fig 4: Wound scraping showed AFB.

DISCUSSION

Very few cases of skin and soft tissue infections due to NTM reported from India⁴. Distribution of NTM and incidence of disease caused by them is not fully understood^[5] and they are known human pathogens and can cause disease in both healthy and immunocompromised individuals. Recently the Rapid grower NTM, *M. fortuitum* and *M. chelonae* have been reported as a cause of abscesses and post surgical wound infections.^[6] They are present in the environment and there are multiple reports of infection after trauma and reported from various surgical procedures like liposuction, silicon injection, pedicures and subcutaneous injections.^[3] Clinical pattern is irregular and the pathology is non-specific and culture and PCR are preferred for specific diagnosis. Though first line antitubercular drugs has cidal effect against the organism, they are not used commonly. A combination of antibacterial agent antibacterial agents like amikacin, fluorinated quinolones, doxycycline, imipenem and clarithromycin are used for their treatment.^[7] In India few cases of NTM infections are being underreported due to low suspicion of its presence amongst clinicians and microbiologists. High degree of suspicion is needed for identification of the pathogen, specially in cases of chronic post operative wounds.^[8]

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