

Case Report

Tubercular dactylitis with deformity ipsilateral involvement of hand and foot in an adult: a case report

Anil Kumar^{1*}, Shashank Aggarwal²

¹Department of Orthopaedics, Pandit Madan Mohan Malviya Hospital, Malviya Nagar, New Delhi, India

²Department of Orthopaedics, Kalpana Chawala Medical College, Karnal, Haryana, India

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*Correspondence:

Dr. Anil Kumar,

E-mail: dranil10051992@gmail.com

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ABSTRACT

Tubercular dactylitis is a rare entity and usually involves bones of hands and feet, involvement of feet is less common. Here we report case of 18 years old female with neglected tubercular involvement of her left thumb and left great toe of foot with hallux varus deformity. Her diagnosis was delayed as she did not seek any healthcare advice for a long time and also lack of suspicion of entity. This entity which should be kept in mind when making differential diagnosis that can be treated conservatively when diagnosed early.

Keywords: Tuberculosis, Dactylitis, Hallux varus

INTRODUCTION

Tubercular involvement of short tubular bones of hands and feet known as tubercular dactylitis. Swedish scientist Carl Von Linne was first to mention this condition and named it spina ventosa.¹ 85 percent of the case are seen in children younger than 6 years of age.² involvement of the upper limb is common than bone of feet and proximal phalanx of index and middle finger is involves more frequently.³ Here we report a case of 18 year old women presented to us with involvement of ipsilateral hand and foot with cervical lymphadenopathy.

CASE REPORT

An 18 years old female was referred to orthopaedic department with varus deformity of her left great toe since last 2 years and chronic discharging sinus on base of left thumb since last 1 year. Patient belongs to lower economic status and first develop painful swelling and redness of the left great toe and later she develop discharging sinus at base of great toe on dorsal aspect, sinus used to heal on its

own and again started to discharge in few weeks, for this patient did not seek any medical treatment and was using homemade remedy for dressing of the sinus and over the course of time although the sinuses healed and she develop varus deformity (Figure 1) of the great toe with restricted range of motion at 1st MTP joint. Patient also has active discharging sinus at the base of left thumb since last 12 months. On examination (Figure 2) there was swelling at the of the thumb, with old healed sinuses, secondary skin changes and an active discharging sinus, local temperature was slightly raised and restricted movements at 1st MCP joint. Other digits and wrist joints were normal. On systemic examination patient had a swelling of cervical lymph node on left side.

Clinical presentation and demographic data of the patient pointed towards tuberculosis as first provisional diagnosis and laboratory work up and radiological studies were done. Patient was having raised ESR (50 mm/hr) and C-reactive protein, anaemia (Hb-8.5 gm/dl). Mantoux test was strongly positive (>20 mm induration). Chest X-ray came out to be normal. X-ray of the involved hand and foot

was done; foot X-ray (Figure 3) showed disease around the MTP joint of great toe with varus deformity. In the X-ray of the hand (Figure 4) there was bony destruction of the distal end of first metacarpal and pathological dislocation of the 1st MCP joint of left hand.



Figure 1 (a and b): Clinical picture of foot showing healed chronic sinus in dorsal aspect of the base of great toe with varus deformity.



Figure 2 (a and b): Clinical picture of the hand showing signs of active infection of the base of thumb.



Figure 3 (a and b): X-ray of the foot showing subluxation of 1st MTP joint causing varus deformity.

MRI of the hand was done and showed tubercular destruction of the bone, and fine needle aspiration cytology of the cervical lymph node s was done that revealed granulomatous inflammation. Based on all these features a diagnosis of tubercular dactylitis was made and

patient was started on 4 drug regimens of antitubercular therapy consisting of rifampicin, isoniazid, ethambutol and pyrazinamide respectively.



Figure 4 (a and b): X-ray of the hand showing lytic lesion and destruction of distal end of 1st metacarpal with pathological dislocation of MCP joint.

DISCUSSION

Tubercular dactylitis is a rare presentation of the extra-pulmonary tuberculosis and consists of less than 2% of all the tuberculosis cases.⁴ Majority of the patients is younger and its incidence believes to be 0.65-6.9%. The disease is slowly progressive and diagnosis is often delayed because of multiple reasons like nonspecific clinical presentation of the disease, late presentation and lack of awareness in the community of low socioeconomic status in developing countries like India, ability of occurrence of disease in absence of the pulmonary tuberculosis, paucibacullery lesion of the disease, poor awareness among the clinicians. In a study of 66 patients on extra-spinal skeletal tuberculosis by Ali et al, showed that 99% of the patient were belongs to low socioeconomic status.⁵ In our case patient presented late and was referred from ENT surgeon after examination of her cervical lymph node swelling.

Clinical symptoms of the tubercular dactylitis often varies and most common symptoms are pain, swelling and decrease movements of the adjacent joint.⁶ various other conditions like benign and malignant tumors, non-infectious granulomatous infections, pyogenic and fungal osteomyelitis, syphilitic osteomyelitis can mimic tubercular dactylitis.⁷ however diagnosis can be made on the basis of clinical and radiological features and which can be conformed on the basis of tissue biopsy and finding acid fast bacilli on smear examination and culture.⁸ Treatment of the tuberculosis of the extremities is generally non operative and current recommendations according to WHO and ministry of health and family welfare, government of India it consists of 2 months of intensive phase with four drugs (rifampicin, isoniazid, ethambutol, pyrazinamide) followed by 10 months of 3 drugs regimen (rifampicin, isoniazid, ethambutol), the continuation phase can be increased to further 6 months on case to case basis.⁹ Our patient presented very late, which resulted in varus deformity of the great toe and was having

active disease of the ipsilateral left thumb and a tubercular cervical lymph node, so antitubercular drugs were started and a below elbow thumb spica splint was given. Patient denied for surgical correction of deformity of the great toe. In a study of 7 patients Mehmet et al shown that tuberculosis of short tubular bone heals with antitubercular drugs with good functional outcomes and usually no surgical intervention required.¹⁰

Clinical massage

Usually patients with tuberculosis responds well with early presentation and diagnosis and management with multidrug therapy otherwise can results in deformities and involvement of other parts of the body.

CONCLUSION

Tuberculosis of the hand and foot is not common and involvement of ipsilateral hand and foot is rare. Tuberculosis should be kept in mind when making differentials diagnosis for long term history in malnourished patients belonging to lower socioeconomic status. The disease managed me by conservative treatment methods and mostly patients does well.

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