Tuberculous Osteomyelitis in 9 year female patient: a rare case report

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Abstract
Osteomyelitis is an inflammatory condition of the bone.¹ The word “osteomyelitis” is derived from two Greek words “osteon” means “bone” and “myelions” means “marrow”.⁶ The meaning of “osteomyelitis” is the infection of medulla of bone. “Tuberculous osteomyelitis” is the osteomyelitis occurring in patients who are immunocompromised as they suffer from tuberculosis.⁹ Here, in this article, we are highlighting a case report of a 9 years old female patient suffering from tuberculous osteomyelitis of mandible. This case is a rare case and was successfully managed.

Keywords: Osteomyelitis, Tuberculous osteomyelitis, Tuberculosis.

Case Report
A 9 year female patient visited M.A. Rangoonwala College of Dental Sciences & Research Centre, Pune, with the chief complaints of pain and swelling in the lower left back teeth region of jaw. Patient was also complaining of pus discharge from the punctum present over the lower left back region of jaw. This patient was suffering from tuberculosis 6 months back and she had completed the treatment with “DOTS” for tuberculosis, 6 months back.

On clinical examination, we noticed that with relation to the patient’s chief complaint, there was carious permanent first molar tooth. On radiographic examination, we observed that, there was periapical radiolucency and bone loss with relation to 36. We started antibiotics medication administration to the patient. Under antibiotic coverage, we performed extraction with the lower left first molar tooth and this was followed by the surgical excision of odontogenic oro-cutaneous fistula after some period.

In this way, this case was managed in the M.A. Rangoonwala College of Dental Sciences and Research Centre, Pune.

Discussion
Osteomyelitis of jaws can also be defined as “the presence of exposed bone in oral cavity which fails to
heal after appropriate intervention.”

The diagnosis of osteomyelitis is based on the basis of patient’s history, clinical examination, radiographic findings, and microbiological and clinical aspects. Resorption, suppuration, inflammatory processes like necrosis of mineralized and narrow tissues, sclerosis are various characteristics of “osteomyelitis”. Odontogenic infection, early termination of antibiotic therapy, trauma are the various causes of osteomyelitis. Radiologic examination of osteomyelitis patients show radiolucent areas, sequestrum formation and bone destruction. In these patients, fistula may or may not be developed. Formation of oro-cutaneous fistula associated with dental cause is a relatively rare condition. It drains all the infection to outside. Fistula is defined as an abnormal pathologic pathway between that lesions form an internal cavity or organ to the surface of body.

The present case describes draining fistula, bony destruction which are related to the diagnosis of osteomyelitis. Tuberculosis is one of the oldest disease known, affecting human beings. The causative organism is Mycobacterium tuberculosis. It infects about 33% population of the world as per the world health organization. “DOTS”, i.e., “Directly Observed Treatment, Short Course” is the internationally accepted therapy for drug-susceptible tuberculosis. “DOTS” consists of many antibiotics like isoniazid, rifampicin, pyrazinamide and Ethambutol. This treatment is lengthy up to 6 months for drug-susceptible variant of TB whereas up to 9 months for drug-resistant variant of TB. In the present case patient has completed 6 months treatment with DOTS, about 6 months back.

Tuberculous osteomyelitis is rare entity and contributes less than 2% of skeletal TB. Involvement of jaws in tuberculosis is even rarer phenomenon and mostly it affects older individuals. Occurrence of tuberculous osteomyelitis in children is a very rare case. Hence, the present case is very rare case.

References