

Osteomyelitis of the Jaws

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Osteomyelitis of the jaws is frequently associated with the extraction of or other dental trauma to teeth during the acute stage of an infection. It may also occur spontaneously, most frequently around an area of neglected dental caries or apical abscess formation, less frequently associated with upper respiratory or general diseases, and in association with osteomyelitis elsewhere in the body. It occurs far oftener in the lower than in the upper jaw in those cases associated with extraction, due to the poor drainage afforded a mandibular tooth socket and the excellent drainage from a maxillary. Prevention or early care of dental caries, and avoidance of dental trauma or extraction during the acute phase of an infection, will do much toward eliminating osteomyelitis of the jaw. The treatment of osteomyelitis should be conservative as far as operative attacks on the bone itself are concerned. Osteomyelitis is an infection and inflammation of the bone or the bone marrow. It can happen if a bacterial or fungal infection enters the bone tissue from the bloodstream, due to injury or surgery. Osteomyelitis of the jaws can be intensely painful, and it can result from caries or periodontal disease. The jawbone is unusual because the teeth provide a direct entry point for infection. Malignancy, radiation therapy, osteoporosis, Immune deficiency states, Diabetes mellitus, malnutrition, and extremes of age increase a person's risk of osteomyelitis of the jaws. Failure of microcirculation in cancellous bone plays big role in establishment of osteomyelitis, because the involved area becomes ischemic and cellular component of bone becomes necrotic. A sinus, gum, or tooth infection can spread to the skull. The mandible jaw becomes more frequently involved in osteomyelitis than Maxilla. Because Blood supply to the maxilla is much richer. Mandible on the other hand gets its primary blood supply from inferior alveolar artery and because the overlying cortical bone of the mandible limits penetration of periosteal blood vessels. The signs and symptoms depend upon the type of OM, and may include: Pain, which is severe, throbbing and deep seated. Fever which may be present in the acute phase and is high and intermittent. Initially fistula is not present. Chronic fatigue syndrome, dental pain, but headache or other facial pain Trismus (difficulty opening the mouth), which may be present in some cases and is caused by edema in the muscles. Dysphagia (difficulty swallowing), which may be present in some cases and is caused by edema in the muscles Pus may later be visible, which exudes from around the necks of teeth, from an open socket, or from other sites within the mouth or on the skin over the involved bone according to the length of time the inflammation has been present. In acute osteomyelitis, infection develops within 2 weeks of an injury, initial infection, or the start of an underlying disease. The pain can be intense, and the condition can be life-threatening. A course of antibiotics or antifungal medicine is normally effective. For adults, this is usually a 4- to 6-week course of intravenous, or sometimes oral, antibiotics or antifungals. In chronic osteomyelitis, infection starts at least 2 months after an injury, initial infection, or the start of an underlying disease. Patients usually need both antibiotics and surgery to repair any bone damage. Treatment Acute Osteomyelitis is managed by administration of surgical debridement, removal of causative factors (removal of reasons) and appropriate antibiotics. If there is fracture of the mandible, the area must be fixed and stabilized. Surgically, we must remove non vital teeth in the area of infection. Remove necrotic, loose pieces of bone. Antibiotic therapy is continued for a much longer time than is usual for Odontogenic Infections. For mild osteomyelitis antibiotics should continue at least 6 weeks. For severe chronic Osteomyelitis antibiotics administration may continue for up to 6 months. Prevention: Patients with a weakened immune system should Cleaning and dressing an open wound can prevent infection. Have a well-balanced healthy diet and suitable exercise, to boost the immune system. Avoid smoking, as this weakens the immune system and contributes to poor circulation patients, smoking, it worsens the circulation. Avoid excessive regular alcohol consumption as this raises the risk of hypertension, or high blood pressure, and high cholesterol.

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