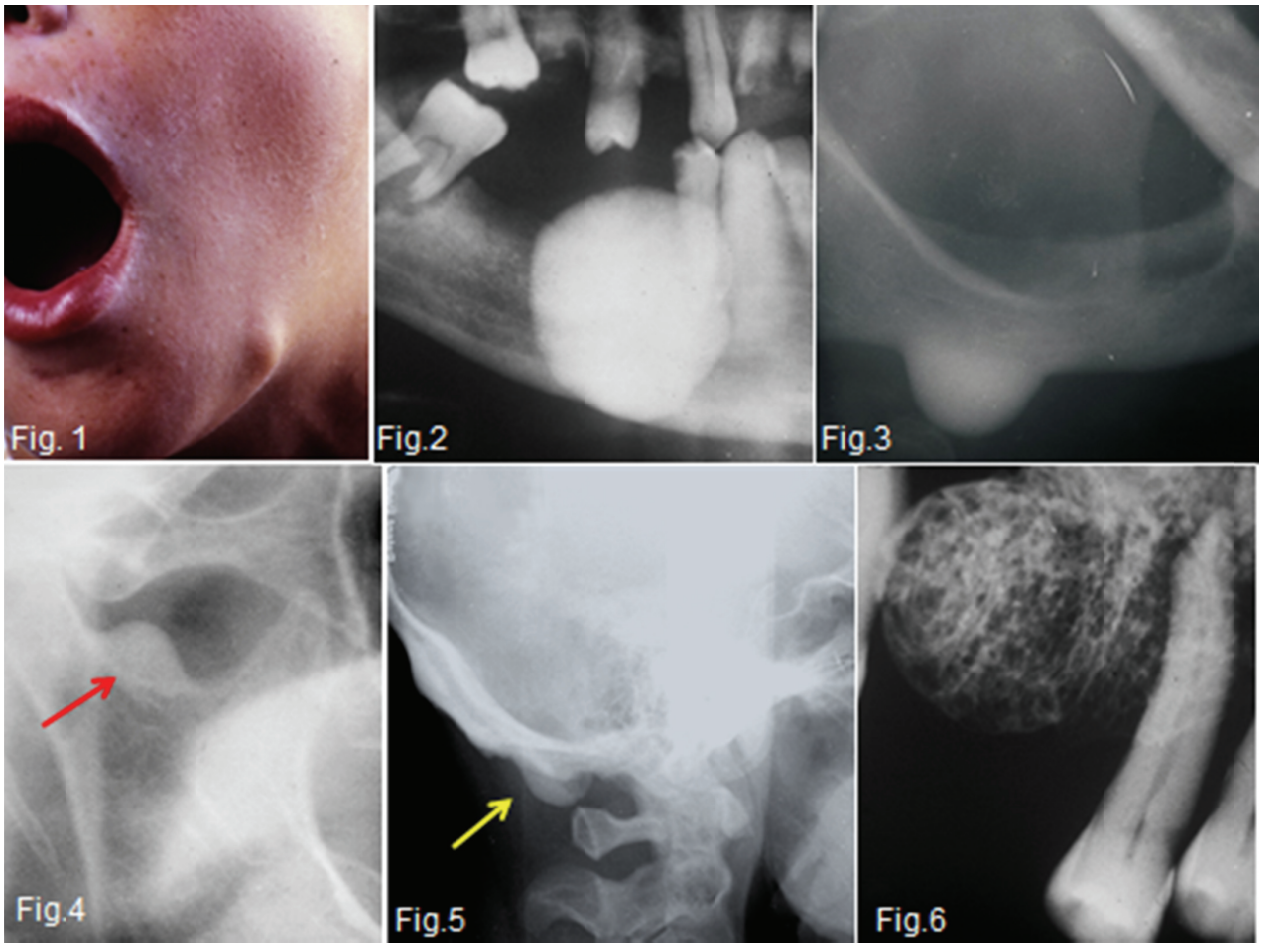
# Maxillo-facial radiology case 144

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CJ Nortjé

A sixteen year old male patient presents at your office with the main complaint of a painless, slowly enlarging bony swelling in his lower left jaw Fig.1. The radiographs presented are from other patients with the same condition. Discuss the radiological features and what is your diagnosis?




## INTERPRETATION

After histological evaluation of the bony swelling of the presenting patient a diagnosis of an osteoma was made. This benign lesion of bone is characterized by a bony protuberance of mature lamellar or woven bone that usually arises in membranous bones. These lesions are usually considered to represent hamartomas or reactive lesions secondary to low grade inflammation. When they occur centrally in bone they are endosteal in origin. The central tumours are characterized by a dense mass and are also known as the compact or ivory osteoma (Fig.2). When the tumour is located in the vicinity of teeth, root resorption may occur. When they occur on the peripheral surface of bone, they are subperiosteal in origin. The peripheral tumour is characterized by a dense sclerotic mass projecting from the surface of the affected jaw (Fig.3). The most common locations are the mandibular condyle and near the angle of the mandible. Other notable sites are the coronoid notch and the lateral aspect of the ramus. A compact osteoma is attached at the mandibular notch (Fig.4), whilst an incidental finding of a compact osteoma in a 45 year male patient seeking orthodontic care is discernible in Fig.5.The trabecular osteoma (Fig.6) is another type of osteoma which is most frequently encountered in the maxilla, where it may be located in the palate on the vestibular side of the alveolar process. The trabecular osteoma can occur subperiosteally, elevating the mucosa, as well as centrally within the jaw, most often in the premolar region. The growth of the tumour is very slow. There is a female predominance, with a ratio of 3:1. The reported age range for osteoma of the head and neck is 16 to 74 years, with patients in their sixth decade being most commonly affected. Surgical removal is advisable for the peripheral located osteomas, while centrally located tumours usually require no treatment.

**CJ Nortjé:** *BChD, PhD, ABOMR, DSc*. Faculty of Dentistry, University of the Western Cape. E-mail: cnortje@uwc.ac.za

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