

## ABSTRACT

drug, could be associated with an increased risk. The discontinuation of both drugs was found to be associated to the spontaneous healing.

### The surgical treatment of mandibular peripheral calcifying epithelial odontogenic tumour (Pindborg tumor) with Er,Cr:YSGG laser: a case report

M. E. Licata<sup>1</sup>, A. Albanese<sup>1</sup>, G. Giannatempo<sup>2</sup>, M. Dioguardi<sup>2</sup>, R. Mauceri<sup>1</sup>, G. Campisi<sup>1</sup>

<sup>1</sup>Dip. Discipline Chirurgiche, Oncologiche e Stomatologiche, Palermo

<sup>2</sup>Dip. Medicina Clinica e Sperimentale, Foggia

**Aim.** Calcifying epithelial odontogenic tumor (CEOT) is a rare, benign, locally aggressive odontogenic epithelial tumor that affects the jaws. It is also referred as Pindborg tumor.

Topographically two entities have been distinguished: intraosseous (central) and extraosseous (peripheral). Numerous surgical treatment modalities have been suggested, and the treatment plan is dependent on multiple factors such as size and location of neoplasm, general condition of patient and operator skill. Small lesions with not bone involvement and well-defined borders could be treated by conservative surgical approach. The aim of this case report was to propose a new treatment modality of peripheral CEOT using Er, Cr: YSGG laser.

**Methods.** A 55-year-old male was referred to our oral medicine surgery for a single, slowgrowing, painless, fibrous, gingival swelling. Past and medical history did not reveal any relevant information. He was taking no medication and had no history of known drug allergy. The intra-oral examination revealed a sessile mass of approximately 1,2 x 0,7 x 0,3 cm in size involving the left lingual mandibular alveolar process. The overlying mucosa showed an ulcer due to chronic trauma by chewing. On palpation, growth was not tender, no fluctuant, hard and fibrous in consistency. CT-scans did not indicate any bone involvement. Treatment plan comprising of excisional biopsy of the lesion using an Er, Cr: YSGG laser was planned. An incision was made including the overall mass, the lesion was lifted along with the underlying periosteum from the bone surface and removed. Haemostasis was achieved by laser and healing was obtained for second intention. The specimen was sent for histological examination.

**Results.** Histopathological assessment showed sheets of polyhedral epithelial cells with well-defined borders, arranged in a pseudoglandular pattern. The cells were separated by thin bands of connective tissue in areas showing deposits of amorphous eosinophilic material. Small foci of calcifications were also noted. Diagnosis of CEOT was formulated. The postoperative course of the patient was uneventful, and there was no evidence of disease at the 2-year follow-up.

**Conclusion.** A new conservative surgical treatment with Er, Cr: YSGG laser was proposed for the treatment of a peripheral CEOT. This approach was possible since the lesion was small without characteristics of malignancy. It appeared to be efficient being minimally invasive and offering many clinical advantages (minimal intra-operative bleeding, haemostasis, reduced times of healing).

### Medication-related osteonecrosis of the jaw: a 4-year experience

R. Marino, P.F. Menduni, M. Berrone, V. R. Carbone, S. Gandolfo, M. Pentenero

Department of Oncology, Oral Medicine and Oral Oncology Unit, University of Turin, Orbassano (TO), Italy

**Aim.** Bisphosphonates, antiresorptive (mainly Denosumab) and antiangiogenic therapies are widely used in the management of metastatic disease involving the bone and in the treatment of osteoporosis. Patients are referred to our clinic aiming to: 1) evaluate the oral conditions of the oncologic and osteoporotic patients before the beginning of the therapy with bisphosphonate in order to reduce as less as possible the oral risk factors, 2) follow up patients during all the period of treatment in order to intercept as soon as possible the onset of the disease and 3) plan the treatment in case of bone necrosis.

**Methods.** Data on patients observed in a 4 years period have been collected with particular attention for indications to treatment, medication type, incidence, treatment and prognosis of medication-related osteonecrosis of the jaw (MRONJ).

**Results.** From May 2011 until December 2014, 199 patients (84 males, 115 females) taking bisphosphonates or antiresorptive or antiangiogenic drugs were referred to our Department. Patients with oncologic diseases represents the 90% of subjects: 20% were affected from breast cancer, 32,6% prostate cancer, 15,5% lung cancer, 28,2% other malignant tumors with bone metastases. Osteoporotic patients represented only 10% of the sample and treated with oral bisphosphonates (alendronate). MRONJ occurred in 28/199 patients (14%), after a mean latency time of 36 months after the first assumption of medication. 68% of patients with MRONJ (19/28) were oncologic patients. 42% were affected of breast cancer, 15% prostate cancer, 15% multiple myeloma and 28% other tumors. The most relevant complication was pain, observed in 80% of cases. 60% of the MRONJ was localized in the mandible, 35% in the maxilla, and 5% in both mandible and maxilla. 57% of the MRONJ occurred after extractive procedures, 18% in patients with removable prosthesis, 20% were considered spontaneous and only 5% occurred on a site of periodontal disease. Surgical treatment was performed in case of exposed and necrotic bone or fistulas that probes to bone associated with infection as evidenced by pain and erythema in the region of exposed bone with or without purulent drainage (stage 2). On the base of such indications, 16 patients were treated, with 2 patients presenting relapse in less than 6 months, corresponding to a success rate of 88%. Patients were mainly treated under local anaesthesia, only with performing debridement of necrotic bone. In six cases (stage 3) the extension of bone necrosis required a segmental ostectomy under general anaesthesia. These surgical approaches had similar success rate.

**Conclusion.** Since the discovery of bisphosphonates-related osteonecrosis of the jaw, there has been increasing evidence in recent years of osteonecrosis induced by drugs other than bisphosphonates, mainly agents with antiangiogenic and antiosteoclastic activity. Patients assuming antiresorptive medications for osteoporosis are less often referred for prevention of MRONJ and usually come to specialized clinics when MRONJ is already underway.