

IMPORTANCE OF ORAL CAVITY CARE BEFORE MAXILLO FACIAL SURGERY

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ABSTRACT

Oral cavity care is recommended before any radiotherapy, cardiac surgery, renal surgery, organ transplant or even a diabetic subject's glycemic imbalance, but often we forget to follow the same rigor in oral maxillo facial surgery a patient.

During a surgery of facial tumors or even in traumatology during bi-maxillary blockage, it is often observed that oral pathologies are not taken care of beforehand.

The clinical cases presented in this work show the suffering of the patients due to an odontalgia and underscore the difficulties of the odontological care due to limitation of the patient's postoperative mouth opening.

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INTRODUCTION

The mouth cavity care is essential before any radiotherapy because we fear an osteo radionecrosis. Likewise before any cardiac, renal or organ transplant surgery, the same rigor is followed because of the risk of infection. However, the same rules for maxillofacial surgery are forgotten: the clinical cases presented in this work reflect well the ignorance of odontological pathologies at the time of the surgical care of a maxillofacial tumor.

The place of the tumor being extra oral, mouth cavity examination as well as pre-surgical care of oral cavity are ignored; as a result, when an odontological painful complication of pulpitis or infectious type occurs, it cannot be optimally cared for because of limitation of the patient's postoperative mouth opening, bi-maxillary blockage or maxillo-mandibular ankylosis.

The clinical cases presented show the issue and recommend a odonto-conscious behavior to follow.

Clinical observation N° 1

Mrs G.A.E., 31, living in Yopougon came for a checkup on March 16, 2017 due to a tooth pain located on the 37 and 38 worsening since 1 month. The patient explains that she underwent an above orbital tumor surgery in neurosurgery at Yopougon Training Hospital on January 4, 2017. During our consultation, she complained of more little dental pains before the surgical intervention which became intense a month after.

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Oral opening was very limited (less than 5mm of mouth opening) and the clinical examination showed a patient in general good health, with a part of the face covered with a bandage (Fig 1). Muscle deficit was noted on the lesion side and temporomandibular joint mobility was maintained. There was also a lack of lymphadenopathy and poor oral hygiene. The 37 and 38 showed distal occlusal caries and deep occlusal with pulpal communication, respectively.



Fig 1 limitation of postoperative mouth opening in a 31-year-old patient with an orbital tumor



Fig 2 Orthopantomogram of the patient

The cellular retro radio being difficult to realize because of the trismus, a panoramic radiography we realized (Fig 2). On it, the coronal decay was important especially at the level of the 37 which presented an apical image at its distal root. The 38 had a large carious occlusal cavity in contact with the cameral pulp. The diagnosis of acute pulpitis of 38 and subacute apical parodontitis of 37 was made.

Our treatment plan included a canal treatment with a calcium hydroxide filling as a first step for the treatment of granuloma of the 37 and a pulpectomy of the 38. These treatments on posterior teeth (37 and 38) being impossible to be on executed because of the trismus; an antibiotic covering (2g of amoxicillin a day), an analgesic and a mouthwash were prescribed. A Mechanotherapy to overcome the trismus is instituted: "Use of tongue depressor gradually combined with, clothespin, then later champagne cork". A medical prescription based on an alpha amylase, adjunctive treatment of congestive conditions of oropharynx with Maxilase 3000 Tablets (2 x 2 times a day) and an injection of corticosteroid in the form of kenacort delay is instituted to reduce the fibrosis of the temporal. A letter was sent to the neurosurgery department which immediately communicated the results of the pre-surgical scanner and the operation report. The documents showed that the patient had an intraorbital meningioma responsible for a major exophthalmia; she was operated on January 4th, 2017 by a lateral approach allowing the complete excision of the tumor and the exposure required the section of the temporal muscle which explains the fibrosis of the muscle and the limitation of mouth opening.

Clinical observation N° 2

A permanent limited mouth opening./ A 25-year-old patient presented a double forgotten fracture of the mandibular condyles in childhood, resulting in a bird profile, a micro mandibulia and a permanent limited mouth opening. Clinical consultation showed dental pains caused by the presence of polycaries, teeth root remains with periapical lesions that were difficult to care for due to limited mouth opening, while the treatment plan included multiple extractions and conservative dentistry care.

DISCUSSION

This clinical case showed the difficulties of caring for odontalgia of the 37 and 38 because of a tight postoperative trismus. The care of oral cavity had to be performed before the care of the maxillofacial tumor as is often the case before radiotherapy. Indeed, in view of the extent of post radiotherapeutic osteo radiosecrosis, it is accepted by all that the patient's mouth state have to be evaluated beforehand and the oral cavity should be placed in condition (extracting non-preservable teeth, treating preservable teeth, make a descaling ...) and remove any type of infectious foci [1].

In the first observation, the results of physiotherapy are slow and progressive, while odontological pathologies evolve rapidly with the risk of infectious complications. The restoration of the oral cavity was necessary and a good odonto-stomatological and radiological diagnosis as well as odontological care had to precede the maxillofacial surgery all the more as the patient felt the first painful manifestations before the surgical intervention.

Postoperatively, the impossibility of a local treatment of the 37 and 38 because of the trismus causes a suffering of the patient for a month, a drug overuse and a risk of dental and outer dentistry infectious complication.

In our observation, the exposure required the section of the muscle which led to a reduction, a fibrosis of the temporal and the reduction of the mouth opening whereas recent techniques realized a fronto-temporo-sphenoid cranectomy, after resection and milling of the pathological bone, the surgeon proceeds by removing the soft meningioma, the peri-orbit invades and coagulates at the mono-polar forceps the remaining tumor fragments. He then performs a resection of the hard mother bone to the small wing of the sphenoid, with a dural plasty using the temporal muscle aponeurosis. The closure is performed, after orbital bone restoration, thanks to a bone flap agglomerated with biological glue [2, 3, 4, 5, 6, 7, 8, 9]. When it comes to permanent limitation by permanent constriction of the jaws, the situation is more critical especially if the cause is infectious and that the ankylosis is a locoregional complication. In this case, it is necessary to undo with the blockage by surgery of the block of ankylosis so as to have access to the oral cavity for optimal care of dental lesions [4.5]

CONCLUSION

Failure to consider teeth conditions prior to maxillofacial surgery is a professional mistake that may impact a patient's health. Chewing muscles, whether they are reclined or severed, will impact on the temporo-mandibular joint and thus on the mouth opening, the width of which is an essential element for any intra mouth therapeutic intervention.

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