

Benign Tumors of the Maxillary Bones (About 30 Cases)

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Abstract

Original Research Article

Introduction: Benign neoplasms of the maxillary include various histological entities. In the vast majority of cases, these tumours are related to elements of the dental system and are referred to as odontogenic tumours. More rarely, they are bone tumors themselves, then called non-odontogenic tumors. **Materials and Methods:** Our study is a retrospective study of 30 cases of benign neoplasms of the maxillary, collided within the maxillofacial surgery department of the Specialty Hospital-Rabat, between January 2014 and February 2018. **Results:** Data analysis found a frequency of odontogenic tumours that represented 67% versus 33% of non-odontogenic tumours. The average age was 24 years with no gender predominance. The consultation period was 3 years. Facial swelling was the master symptom, sometimes associated with dental signs in 35% of cases. All our patients received a radiological check-up. Treatment was conservative in 75% of cases. The confirmation of the diagnosis was always based on the anatomopathological examination of the surgical removal part. The evolution was generally favourable in 70% of our patients, without recurrence. **Discussion:** Benign neoplasms of the maxillary have a wide range of histological features and can be divided into 2 major groups: odontogenic and non-odontogenic tumours. Despite their great diversity, the clinical description of these tumors is unambiguous, and it is often the radiological record that will allow to evoke the diagnosis whose confirmation is indispensable by the anatomopathological examination; surgical treatment is usually conservative with good postoperative evolution.

Keywords: Tumor, Maxilla, Mandible, Benign.

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INTRODUCTION

Benign neoplasms of the maxilla represents various histological entities whose clinical and radiological appearance can be revelatory they are most often related to the dental system and are called odontogenic tumors, Non-odontogenic tumours are bone tumours themselves; treatment varies according to histological type but is usually conservative.

MATERIALS AND METHODS

Our study is a retrospective study carried out within the department of maxillofacial surgery at the Rabat specialty hospital.

Having collected 30 cases of benign maxillary tumors over a period of 4 years from January 2016 to February 2020.

RESULTS

The average age of our patients was 30 years with extremes ranging from 17 to 58 years In our series we did not notice a predominance of sex.

Jugal swelling was found in 100% of cases, pain was present in 20% of cases, dental signs had type of neuralgia or dental mobility were present in 33% of cases and endobuccal examination has objectified inflammation of the mucosa in relation to the tumor in 13% of cases.

The mandible was affected in 87% of cases versus 13% of maxillary involvement, the size of the tumor exceeded 4 cm in 76% of cases. The orthopantomogram was started in 87% of our patients and having objected: an osteolytic image in 87% of cases a mixed image was reduced in 13% of cases.

The CT scan was requested in 33% of our patients especially in the case of maxillary involvement, but also to evaluate the cortical lysis and the relationship with the adjacent structures; Contrast injection was used to assess the vascularisation of lesions and to determine the vascular character of the tumor.

All our patients benefited from a surgical treatment that was conservative in 54% of cases and radical in 46% of cases fibula loose flap was used to reconstruct mandibular loss in 43% of cases, osteosynthese plaque was used in 10% of cases especially in non-interruptive bone resection with retention of the mandibular basilar border, the predominant histological type was ameloblastoma in 40% of cases, followed by radiculodental cyst in 23% of cases, giant cells granuloma in 12% of cases; myxoma odonogene 10%, anevrysmal cyst 10%, Keratocyst occupied a percentage of 3%.

The average decrease of the post-operative follow-up was of 1 year: 3 patients were lost in sight a post-operative infection was found in 7% of cases no cases of tumour recurrence or malignant degeneration were noted.



Fig-1: Image objectifying right jugal swelling

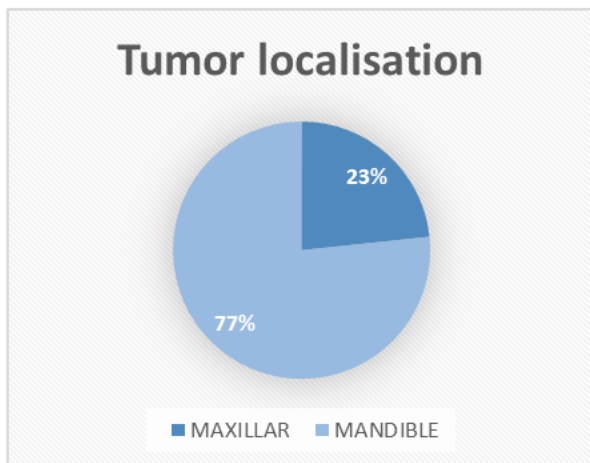


Fig-2: Tumor localisation



Fig-3: Osteolytic image of the right hemimandible

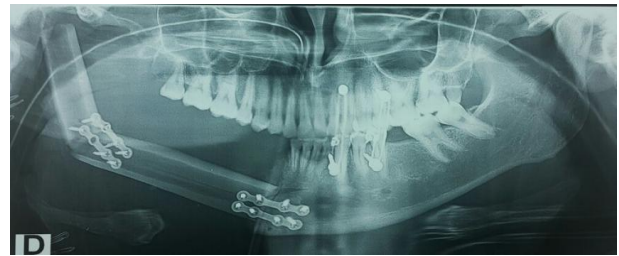


Fig-4: Post-operative radiography after an interruptrice hemimandibulectomy and reconstruction by a loose flap of the fibula

DISCUSSION

Benign maxillary tumors represent a rare entity [1-5], the requirement in our series was 7 cases/year, result identical to that of KOVI [5] and similar to that of JANAH [1] and KOVI contrary to the series of RAKOTOARISOA where the incidence was 14 cases/year the mean age of our patients was 30 years of age result which is similar to other studies consistent with the literature data since the incidence of these tumors remains important during the 2nd and 3rd decades [6-10] in our series we did not find a predominance of sex; same result found in the series of E.kpensi [7], contrary to the studies of RAKOTOARISOA [6], AYANECHI [10] and AVELAR [12] tumor being the preponderant functional sign in all series the clinical examination has objected a tumor size that exceeds 4cm in 67% of cases, a result similar to that of heymans [18] and agbokponto [13].

Inflammation of the oral mucosa was found in only 14% of cases (related to ameloblastoma) the predominance of mandibular involvement was also found in most of the series of the litteratute with as leader ameloblastome what can be explained by the importance of spongy tissue at the mandibular level.

The absence of adenopathy and sensitivity disorders was found in all studies revealing the benign character of the lesions.

The OPT is the reference and first-line examination which allows an analysis of the dental apparatus, the bone frame; the temporomandibular articulation and the lower dental alveolo channel (60). In 85% of the patients in our series, the gap was lower than in the lompo (36) series, 87% and 100% TAGBA (33).

The CT scan of the facial mass was required in case of maxillary localization as well as to analyse the cortical lysis, a periosteal reaction, the relationship with the adjacent structures. Contrast injection also allowed the study of relationships with vascular structures and the vascular nature of the lesion [15, 16]; Performed in 33% of our patients against the Tagba series or only 2% of the patients benefited from the CT v the high cost of this exam at BENIN [2].

Due to aesthetic concerns and to avoid scarring, the endooral approach was performed in 54% of the patients in our series, for the same reason the endooral approach was repeated respectively in the LOMPO [11] and RUHIN series 80 AND 84%.

The cervical approach was reserved for large tumors in case of bone resection, which allowed a wider view and facilitated surgical reconstruction.

Conservative treatment is the treatment of choice in such a way as to preserve the bone capital and it consists of an enucleation with a simple or supported curettage [7]; in our series it was carried out in 53% of cases, conservative treatment can only be used in case of limited lesion of waist with low aggressiveness.

As for radical surgery, it helps to avoid recurrences, iterative surgeries or any ventolar carcinomatous transformation.

In our series we opted for radical surgery in 43% of cases in case of locally aggressive tumor with a high risk of recurrence (ameloblastoma; granuloma has giant cells..). in most authors the radical surgery is the most appropriate to avoid recurrences carried out in 61% of cases in the TAGBA [8] series AND 70% in the LOMPO series [11].

In our series 43% of our patients benefited from a reconstruction by a loose flap of the fibula (loss of mandibular substance due to ameloblastma and odontogenic myxoma) in the RUHIN series 15% of the patients benefited from a reconstruction by a free flap of the fibula [18] and in the BRAGA series the figure was 10% [19].

Odontogenic tumors are the most common entity in our series found in 76% of cases, while in the other series in the literature this frequency remains the highest [11]. for cystic lesions there is also a predominance of radiculodental cysts found at the maxillomandibular level in 23% of cases.

Infection was reversed in 10% and 17% of cases respectively in the LOMPO [11] and TAGBA [8] series.

Infection was found in 7% of cases treated with antibiotic therapy and no case of tumor recurrence

was found in our series, however TAGBA [8] reports a case of recurrence of ameloblastoma treated with conservative surgery, a rate that reached 3,3% in the LOMPO [11] series especially for ameloblastomas.

No cases of malignant transformation have been noted in our series which join the literature data with a low rate not exceeding 10% [8].

CONCLUSION

Benign maxillary tumors are relatively rare, their clinical and radiological aspects are relatively evocative with several histological types that condition surgical treatment. Evolution is generally good in case of adequate treatment.

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