

Metastatic breast carcinoma in the mandible (*a case report*)

Mehdi Ilaouze, Sarah Seghrouchni Idrissi, Karam Mohammed Saoud, Mamouni Nisrine, Sanae Errarhay, Bouchikhi Shehrazad, Abd Aziz Banani

Department of Gynecology, Hassan II Teaching Hospital, Fez, Morocco

Abstract: Breast cancer is a fatal tumor in women; accounting for 15% of deaths from cancer. Distant metastases in breast cancer may spread to almost any region of the body. Typically, metastases to regional lymph nodes are observed in nearly one-third of patients with cancer in the breast, colon, uterus, oral cavity, and pharynx. In women, the commonest metastatic malignancies are from primary cancers in the breasts, kidneys, colorectal region, genital organs and thyroid glands. We are presenting a case report of a 64-year-old female who was diagnosed a case of breast carcinoma and presented with metastasis to the mandible which was confirmed by histopathology

Keywords— breast carcinoma syndrome ; metastasis to the mandible;

1. INTRODUCTION

Breast cancer is a fatal tumor in women; accounting for 15% of deaths from cancer [1]. Distant metastases in breast cancer may spread to almost any region of the body. Typically, metastases to regional lymph nodes are observed in nearly one-third of patients with cancer in the breast, colon, uterus, oral cavity, and pharynx [2]. In women, the commonest metastatic malignancies are from primary cancers in the breasts, kidneys, colorectal region, genital organs and thyroid glands [3,4].

Metastases in the oral cavity are rare and comprise approximately 1% of all oral malignancies [4]. The mandible is affected more frequently than the maxilla, with a predilection for the areas distal to the canines, including the body and ramus [1,2,5].

Metastases to the oral cavity sometimes present with pain, ulcers on soft tissues, paresthesia of the involved region, bleeding, loosening of teeth, trismus, pathological fracture of the affected bone or remain asymptomatic.

Radiographic examination most commonly shows a radiolucent osteolytic lesion with ill-defined and irregular margins and rarely osteoblastic lesions or mixed radiolucent and radiopaque lesions may be seen [6].

We are presenting a case report of a 64-year-old female who was diagnosed a case of breast carcinoma and presented with metastasis to the mandible which was confirmed by histopathology.

2. CASEREPORT

This is a 64-year-old patient with no significant pathological history, referred to our department for management of an infiltrating adenocarcinoma of the right breast. The tumor was negative for estrogen receptors and progesterone receptors; HER2: negatif with ki67: 50%.

In addition, the patient presents a painful tumefaction in regard of the right mandible with prestesia and a limitation of the opening of the oral cavity (figure 1)



Figure 1 : the patient presents a painful tumefaction in regard of the right mandible

A CT scan was performed as part of the extension assessment, objectified the presence of an osteolytic mass of the ascending branch of the right mandible, probably related to a secondary location (figure 2)

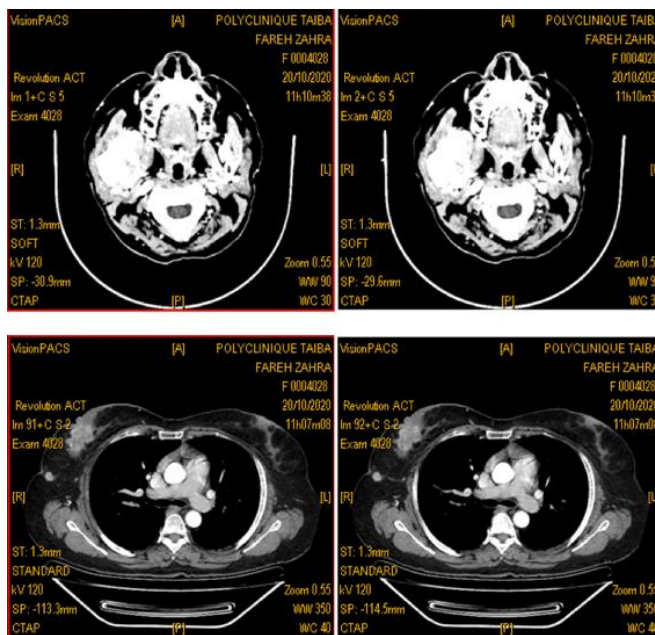


Figure 2: A CT scan objectified the presence of an osteolytic mass of the ascending branch of the right mandible, probably related to a secondary location

also in the context of an extension assessment, a bone scintigraphy revealed a focus of intense bone hyperfixation and focused on the right mandible and the iliac side of the right sacroiliac in favor of secondary bone locations (figure 3)

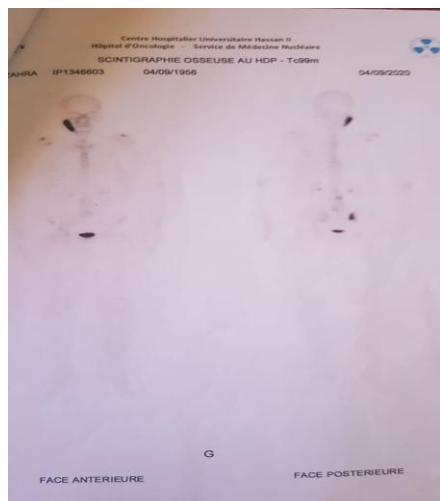


figure 3: a bone scintigraphy revealed a focus of intense bone hyperfixation and focused on the right mandible and the iliac side of the right sacroiliac in favor of secondary bone locations

the patient underwent a surgical biopsy, the anatomopathological and immunohistochemical results of which concluded to a bone localization of a CK7 + adenocarcinoma compatible with a breast origin.

the patient is currently undergoing chemotherapy first with good tolerance and stability of the lesions

3. DISCUSSION

Theoretically, every extragnathic primary malignancy has the capability to metastasize to the oral cavity. Metastasis to the bone occurs more frequently than in the soft tissues [10]. The most frequent primary sites of malignancy with the potential to metastasize in the mandible are, in decreasing order, the breast (31%), lung (18%), kidney (15%), thyroid, prostate and colon (6%), stomach and skin (5%), testicle (3%), bladder, liver, uterus, and ovary (1%) [7].

Metastatic lesions occur more often in the posterior region of the mandible, which is an area that retains its normal hematopoietic function. This possibly explains why the maxilla, although rich in spongy bone tissue, is a less common site for metastasis [7,8].

The most common symptom suggestive of metastatic disease is paresthesia of lower lip and chin. Paresthesia is described in the literature as mental nerve neuropathy or numb chin syndrome (NCS) [9].

When we think that a mandibular lesion could be metastatic, it is important to perform a biopsy, which allowed us to make the diagnosis in our patient.

The cases of mandibular metastasis, the primary of which is mammary, reported in the literature had a very poor prognosis.

Surgical treatment is unnecessary [4]. Palliative treatment may be offered in order to relieve pain, avoid mandibular fractures and infections [5].

4. CONCLUSION

The present case illustrates the value of suspecting a metastatic lesion in the oral cavity. The definite diagnosis can only be given by histopathologic examination. If histopathological, distant metastasis in the oral and maxillofacial region or elsewhere in the body of breast cancer patient is diagnosed, a bone scintigram or pet-scan has to be made to identify other tumor locations and to evaluate therapeutic options. For a patient with multiple metastases only palliative care with chemo-radiotherapy can be given improving the prognosis of the patient. As these lesions are associated with a poor prognosis, early detection is of utmost importance.

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