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Case Report

Medical research

### Retromolar trigone metastasis from operated case of invasive ductal carcinoma of the breast: a rare entity

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#### ABSTRACT

Oral malignant metastases are a relatively rare finding considering the incidence of metastatic tumors in the body. Oral cavity is a rare site of metastasis from the breast. Because of their rarity and atypical clinical and radiographic appearance, metastatic lesions are considered a diagnostic challenge. We describe case report of an operated case of infiltrating ductal carcinoma of breast metastasizing to retromolar trigone region.

**Keywords:** Invasive duct carcinoma, Metastasis, Immunohistochemistry (IHC).

#### INTRODUCTION

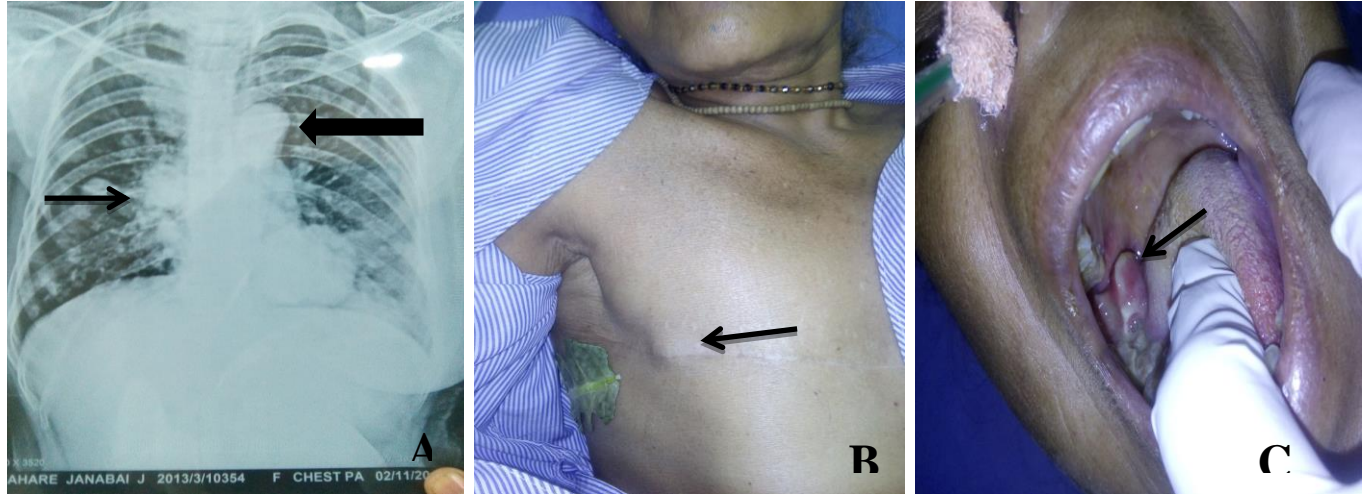
Oral malignant metastases are a relatively rare finding considering the incidence of metastatic tumors in the body. They account for less than 1 percent of all metastatic malignancies. Metastasis to soft tissue of oral cavity is extremely rare account of 0.1 percent of oral malignancies [1]. The breast is the most common primary to the jawbones where as the lung and kidneys are the commonest sources to the oral mucosa [2]. The most common sites of metastasis are the tongue and gingiva followed by the lips, with occasional case reports of metastasis to the palatal or buccal mucosa [3].

#### CASE PRESENTATION

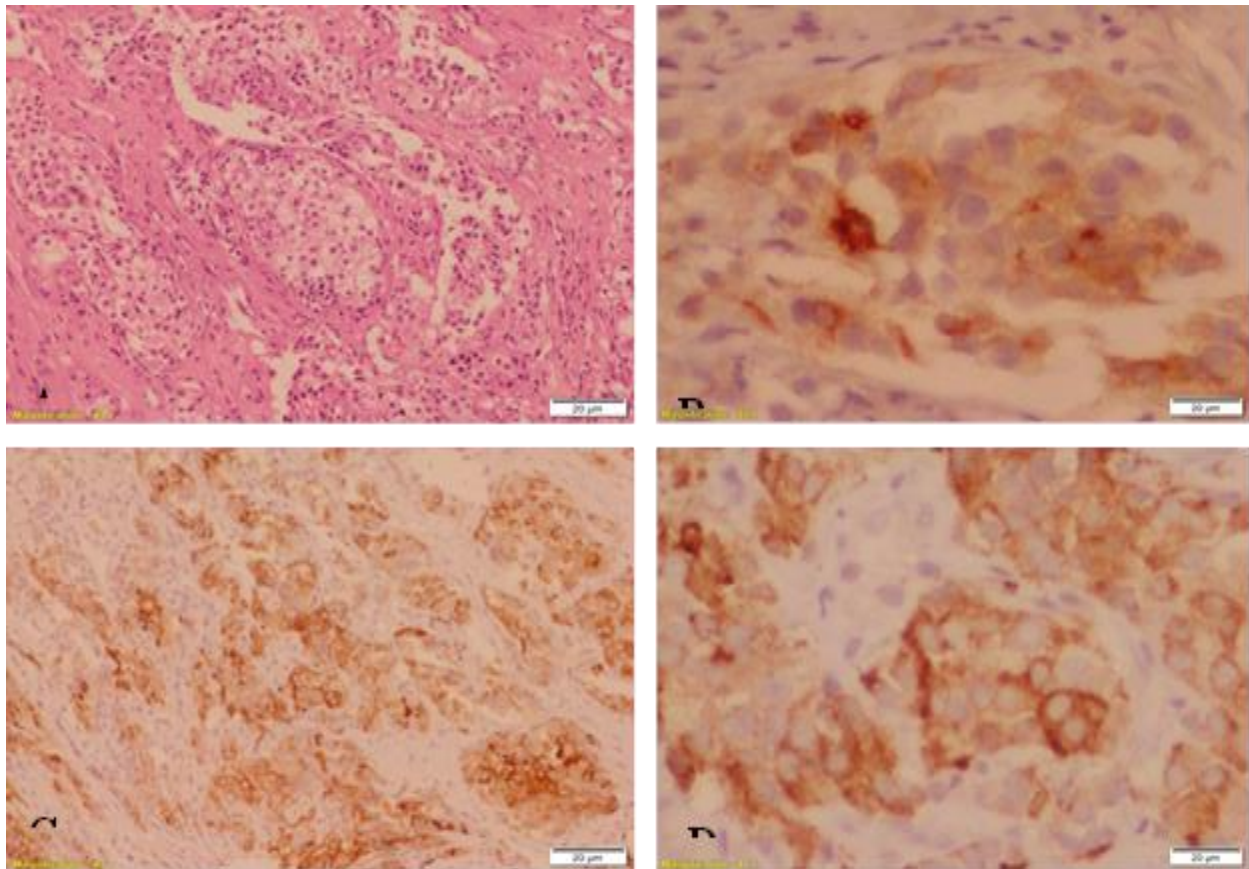
A 60 yr old female presented with right breast mass. On Clinical examination, a firm to hard irregular mass was palpated in the upper outer quadrant measuring approx.5x3cm. Mammography was done, which showed ipsilateral axillary lymphadenopathy. Fine needle aspiration and biopsy were suggested which were reported as suggestive for ductal malignancy & infiltrating ductal carcinoma respectively. Modified radical mastectomy was done and subjected for histopathological examination. Histopathology

reports termed the tumor as Invasive Ductal Carcinoma, NOS (Modified BR grade-II). ER, PR, Her2 status was not done as the patient had some financial constraints. Later, the patient reported to us after 3 yrs of initial surgery with chest nodule

[Fig. 1(B)] over previously operated site and ulceroproliferative lesion on right retromolar trigone region [Fig.1(C)] which was progressively increasing over last 2 months. Biopsy was done

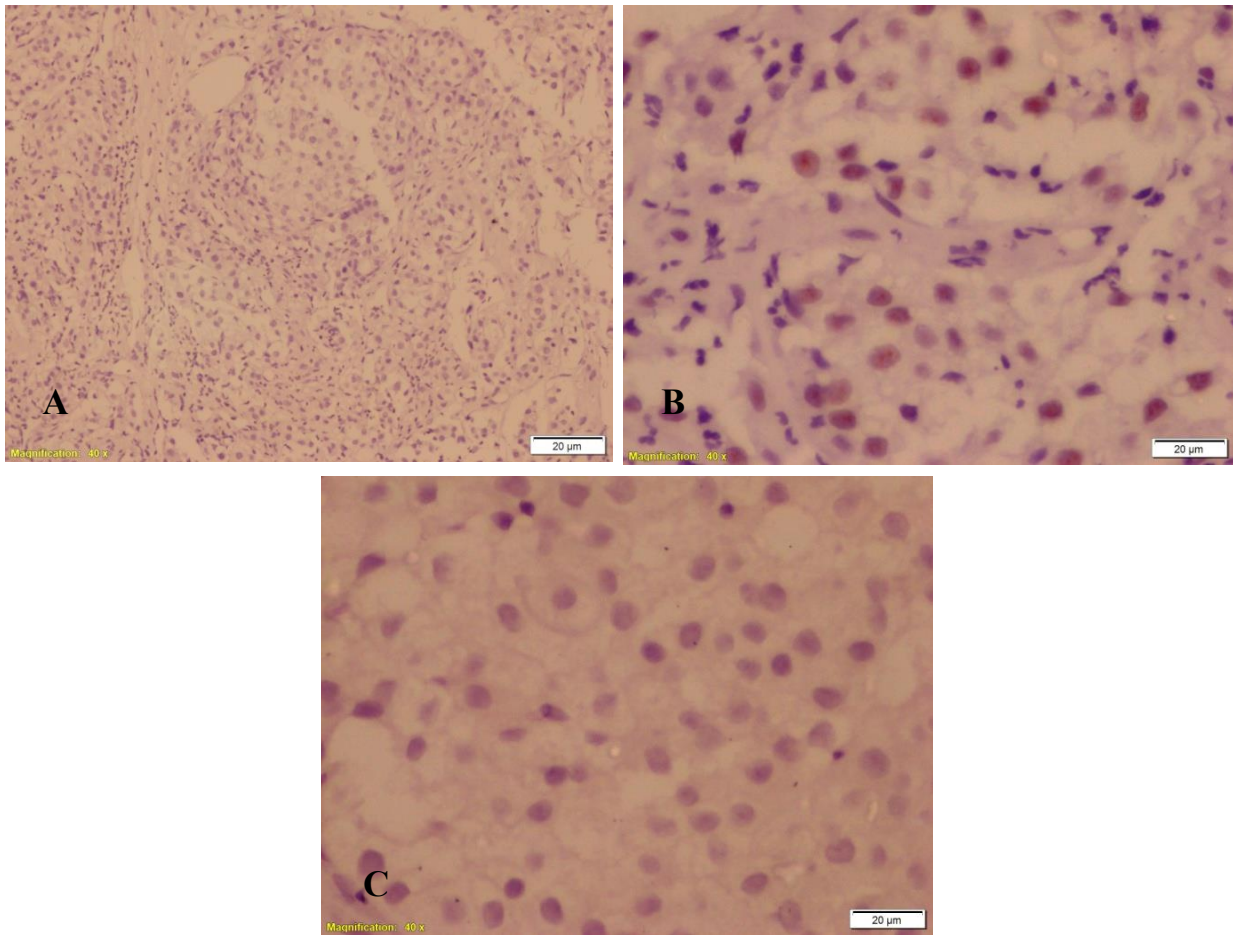


**Fig1. Microphotographs showing infiltrative mass and multiple nodular shadows on chest x-ray(A), post-operative chest wall nodule(B) & ulceroproliferative mass in the retromolar trigone area(C).**



**Fig.2 Microphotographs of sections from retromolar trigone mass showing metastatic deposits of infiltrating ductal carcinoma [H&E-10x-(A)].The tumor cells express mammaglobin (diffuse) (C &D), GCDFP -15 (focal) (B).**





**Fig.3 Microphotographs showing ER-Negativity(A), PgR- Positivity(B) & negative for p40(C).**

from both the chest nodule and retromolar trigone lesion. Chest x-ray showed an infiltrating mass, also indicative of lung metastasis. Histopathological examination suggested recurrence of ductal carcinoma in the chest nodule (operated site) and metastatic deposits of ductal carcinoma in the retromolar lesion. Immunohistochemistry was done in which the tumor cells expressed PR (Progesterone receptor) positivity [Fig.3 (B)] and negative for ER [Fig.3 (A)] and Her2 receptor. Focal GCDFP-15[Fig.2 (B)] & diffuse mammaglobin positivity [Fig.2 (C&D)] in the metastatic tumor cells/mass ruled out any other primary malignancy. Patient underwent palliative chemotherapy- 2 cycles CAF (Cisplatin, Adriamycin, 5-Fluorouracil) even after which there was disease progression. Patient was explained about associated complications and prognosis. Following which, she was taken up for palliative treatment with CMF (Cisplatin, 5-Fluorouracil) regimen.

## DISCUSSION

Metastasizing carcinoma to head and neck region especially in oral cavity is difficult to diagnose because of pathognomonic signs and symptoms. Metastases to the oral cavity from distant tumours are uncommon, accounting for only 1% of all oral malignancies. They mainly involve the bony structures (particularly the mandible), whereas primary metastases to soft tissues are extremely rare (only 0.1% of oral malignancies) [1]. The most common sites of soft tissue involvement are the gingiva, tongue, lips and the buccal and palatal mucosa. The primary tumours are mainly lung, breast, kidney and colon. The breast is the most common primary to the jawbones whereas the lung and kidneys are the commonest sources to the oral mucosa [2].

In our case, the patient presented simultaneously with chest nodule in scar at operated site and distant metastasis at retromolar trigone region which was an unusual site.

The clinical findings and radiographic picture of a metastatic lesion can be difficult, leading to a misdiagnosis of a benign process; therefore in such cases, especially in patients with a history of malignant disease, biopsy and immunohistochemistry is mandatory [4]. Taking a thorough medical history along with a clinical suspicion may be helpful in making the diagnosis [5].

Most of the patients with metastases in the oral cavity also develop metastases at other sites, often leaving no other option than palliation [6-9]. However, the discovery of an oral metastasis leads to the detection of an occult primary malignancy elsewhere in the body. [4-6]

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## CONCLUSION

Because of its rarity, the diagnosis of a metastatic lesion in the retromolar trigone is challenging. This case emphasized the importance of a complete and careful work-up, with particular attention to detailed medical history as well as careful clinical and radiographic inspection for unusual signs and symptoms. Immunohistochemistry correlation of the metastatic lesion in line with primary site also plays an important role in ruling out second primary in such cases of rare presentations. Informed consent was taken from patient.

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