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A Rare Malignancy of Para nasal Region; Osteosarcoma

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Abstract:

In the practice of otorhinolaryngology mass in nasal cavity is often seen. According to other regions, malign tumors of the paranasal region and nasal cavity are very rare. Osteosarcomas constitute 0.5-1% of all tumors in the nasal cavity and paranasal sinuses. In this study, we report a case of maxillary osteosarcoma causing recurrent epistaxis.

Keywords: ***Paranasal sinus,osteosarcoma,epistaxis***

Introduction:

Masses in nasal cavity can be classified as malignant, benign and non-neoplastic lesions. According to other regions, malign tumors of the paranasal region and nasal cavity are very rare and the diagnosis is usually made at a time when the tumor is advanced. Among malign tumors, sarcomas originate from mesenchymal cells and are rare in the head and neck region. Osteosarcomas constitute 0.5-1% of all tumors in the nasal cavity and paranasal sinuses.[1, 2] We aimed to present a case of maxillary osteosarcoma which causes recurrent epistaxis in this study.

Case:

A 64-year-old man was admitted to our hospital with a complaint of nose bleeding from the right side, which was repeated at intervals of approximately 6 months. The examination of the patient did not have signs of active bleeding. There was no evidence of any features other than polypoid formation originating from right middle mea in the rhinoscopic exaamination of patient. The patient's history had no significant features other than hypertension. Patient had admitted to other clinics for epistaxis complaint before and nasal mucosal cauterization procedure was performed twice. There was no evidence other than chronic anemia in the patient's routine blood tests. Bleeding-clotting values were normal. There was a soft tissue densitic mass filling the right maxillary sinus, extending to the right nasal cavity, ethmoid cells and partially frontal sinuses, destroying the right maxillary bone to the skin, and densitia compatible with calcification-free bone fragments in the paranasal computed tomography of patient (Figure 1,2). Biopsy of the lesion in the right middle mea was obtained under local anesthesia. Pathology report was compatible with osteoid osteoma. then the patient underwent partial right maxillectomy with lateral rhinotomy under general anesthesia. The patient was discharged on the 6th postoperative day. The pathology was reported as malign mesenchymal tumor compatible with osteosarcoma. Surgical margins were reported as negative. After surgery, the patient underwent external radiotherapy of 200 cGy / fraction 60 Gy in another center. The patient did not have any recurrence at postoperative 2 year follow-up. The patient had no other epistaxis complaint again and the blood works were normal for anemia in the follow-up.

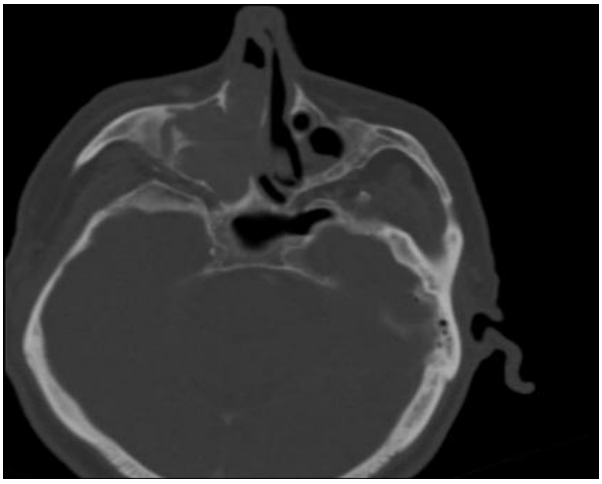

Figure 1: Paranasal CT image of patient

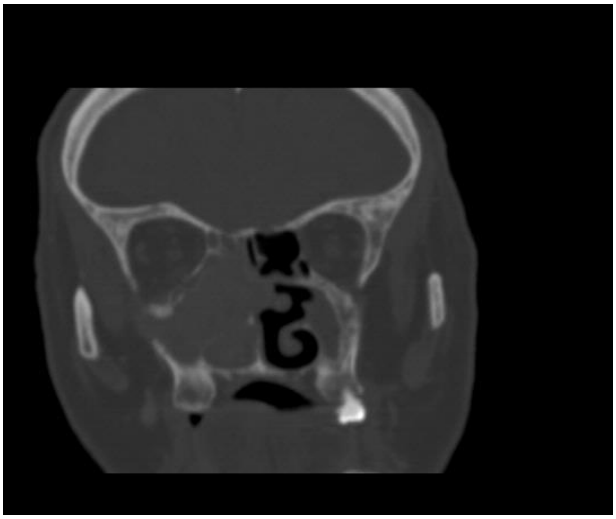

Figure 2: Paranasal CT image of patient

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Discussion:

Paranasal sinus tumors constitute 0.2-0.8% of all body tumors and 3% of upper respiratory tract tumors. 77% of these tumors originate from maxillary sinus.[3] Of these tumors, 80% are squamous cell carcinoma, 10-15% are adenocarcinoma and adenoid cystic carcinoma. The remaining 4-6% constitute melanoma, lymphoma, esteshianeuroblastoma and sarcomas.[3,4]

The most common types of sarcomas in the head and neck region are fibrosarcoma and rhabdomyosarcoma. Osteosarcoma is a high grade primary malign tumor of mesenchymal cells producing tumoral osteoid or immature bone. The most common primary malignant tumor of the bone, excluding multiple myeloma and metastatic bone malignancies, is malignant.[5] Osteosarcomas constitute only 0.5-1% of the nasal cavity and paranasal sinus tumors.[6]

Paranasal sinus tumors initially exhibit the same findings with benign diseases of this region. Among these, it can be counted mostly nasal obstruction, pain in the face, headache, recurrent epistaxis. Despite the presence of one or more of these symptoms at the beginning, the interval between the first symptom and diagnosis varies from 3 to 14 months[7, 8] due to physician or patient-related causes. In our case, our patient had recurrent epistaxis complaint and the duration of onset symptoms and diagnose was about 6 months.

As with all paranasal sinus tumors, treatment protocols should be planned for the osteosarcoma according to the case. Today, the most effective treatment method is possible with a radical surgical intervention after preoperative or postoperative radiotherapy. Five-year survival has been reported to be 55-60% in recent studies.[9]

Surgery and radiotherapy have the best results in paranasal sinus tumors when large series are examined in the literature.[10,11] There is only indication for surgical treatment in small and confined tumors that can be removed safely with large surgical margin. In all cases outside of these, surgery + radiotherapy is recommended for treatment.[12,13] Although some authors view preoperative radiotherapy as a rescue treatment, the difference between preoperative or postoperative radiotherapy in terms of superiority to tumor control has not yet been determined.[14,15] Primer radiotherapy can be used in rare early lesions or in lymphatic lesions, but in general this practice has an adjuvant role. Following primary radiation, the high incidence of disease residues allow the primary radiation to shrink the primary target tumor and allow for a less extensive surgical resection, thereby preserving some vital structures such as the eye.[16] As in other maxillary sinus cancers, the value of primary chemotherapy should also be discussed in osteosarcoma.[17] In accordance with the literature, we performed extensive surgical resection and postoperative radiotherapy treatment in our case.

Another important point to note is the fact that biopsy specimen taken from the paranasal region should be carefully examined by pathologists and that rare tumors of this region, such as osteosarcoma, should be kept in mind during the examination. The first biopsy taken in our case was compatible with osteoma,then after total exicion of tumor was reported as osteosarcoma.

In conclusion, osteosarcomas should be kept in mind in the differential diagnosis of this region as atypical presentation malignancy, and the combination of surgical resection and radiotherapy should be applied as widely as possible in the treatment of head and neck region, especially in the sinonasal region.

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