Case Report

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Chondrosarcoma of the Nasal Septum and Introduction of a Case Admitted to Department of Otolaryngology at Loghman Hakim Hospital

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Abstract

Chondrosarcoma is a rare tumor of the head and neck with a prevalence of 5-12% of all chondrosarcomas reported. The most common affected site in the head and neck is the larynx. Other sites include the craniofacial, maxilla, and mandible, nasal cavity, and paranasal sinuses. Clinical symptoms usually include a painless mass with bony swelling and one of the symptoms that the patient presents with is epistaxis nasal obstruction. The most appropriate treatment is radical surgery. This article introduces a 72-year-old man with a complaint of left nasal congestion, epistaxis, and swelling of middle canthus area of the left eye.

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Introduction

Chondrosarcoma is a rare malignant tumor of cartilage origin that is rarely seen in the maxillofacial region. This lesion is the second most malignant primary bone tumor after osteosarcoma. This tumor can be seen at any age group, but it is rare in children and is more common in the fourth and fifth decades of life (1). Histologically, it is a low grade tumor and it is very difficult to differentiate it from chondroma and osteoblastic chondrosarcoma. The most common clinical and clinical symptoms include a large obstructive mass with symptoms of nasal congestion and bleeding, and sometimes pressure symptoms. (2).

This tumor grows very slowly and metastasizes late. The most common site of metastasis is the lung. Lymph node involvement of the cervical nodes is very rare. In the maxillofacial region, the most common affected sites include maxilla and posterior septum (3).

Case presentation

The patient, a 72-year-old male farmer from Gilan, complained of swelling of the middle canthus of the left eye, epistaxis, nasal congestion, and loss of smell from 7 months ago. He underwent diagnostic CT scan, endoscopy, and biopsy.

CT scan showed a heterogeneous mass with spot calcification inside that filled the nasal cavity of both sides and the septum was not clearly visible (Figures 1 and 2). The mass had

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spread completely into the anterior and posterior ethmoid sinuses as well as the sphenoid sinus (Figures 1 and 2). However, the maxillary and frontal sinuses on both sides remained intact (Figures 3 and 4).

Endoscopic results showed a glossy pale mass with a smooth surface in the nasal cavity on both sides with left preference. Biopsy was then taken from the patient and he was hospitalized for treatment after diagnosis of chondrosarcoma (pathology report). Other examinations were performed for the patient and chest x-ray tests were normal. The patient underwent endoscopic resection and the mass was removed as much as possible.

The patient was referred for radiotherapy due to the impossibility of examining the margin due to its proximity to vital organs, after confirming the pathology report (conventional chondrosarcoma).

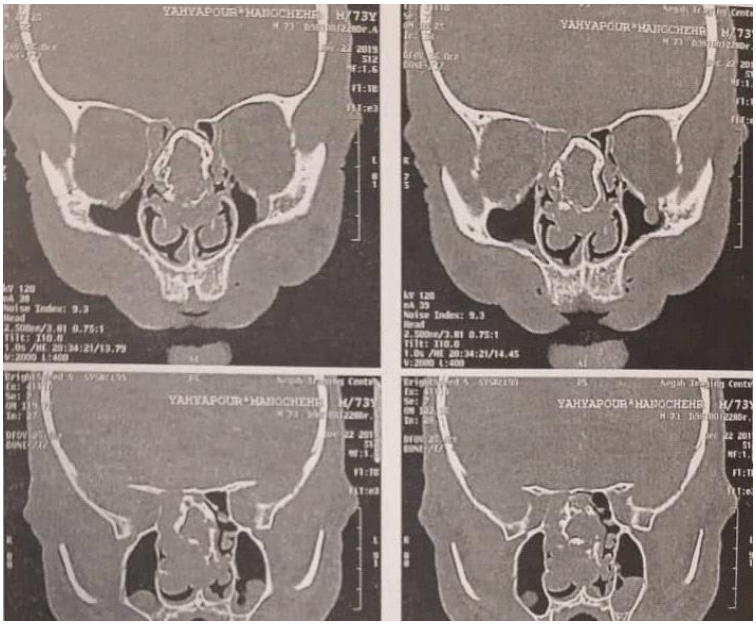

Figure 1. Chondrosarcoma CT-scan of nasal cavity with coronal cut.

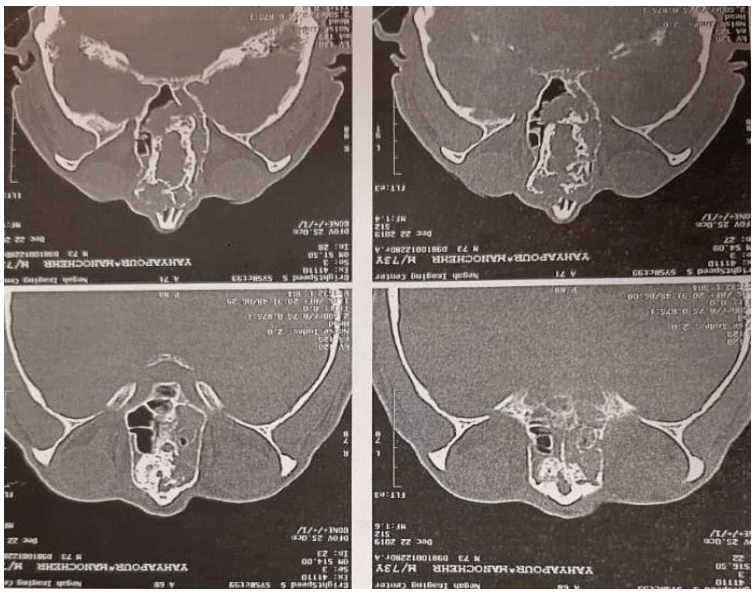

Figure 2. Chondrosarcoma CT-scan of ethmoidal sinus with axial cut

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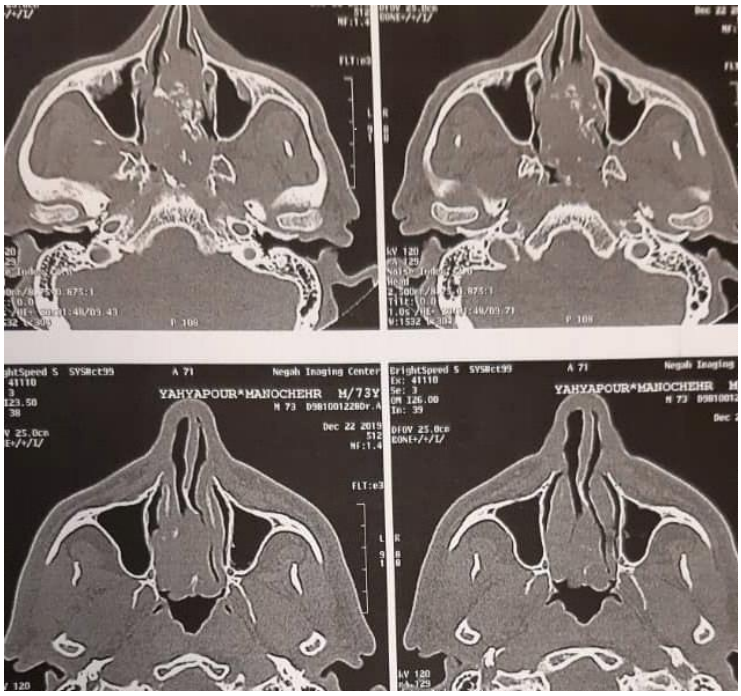

Figure 3. Chondrosarcoma CT-scan of nasal cavity with axial cut

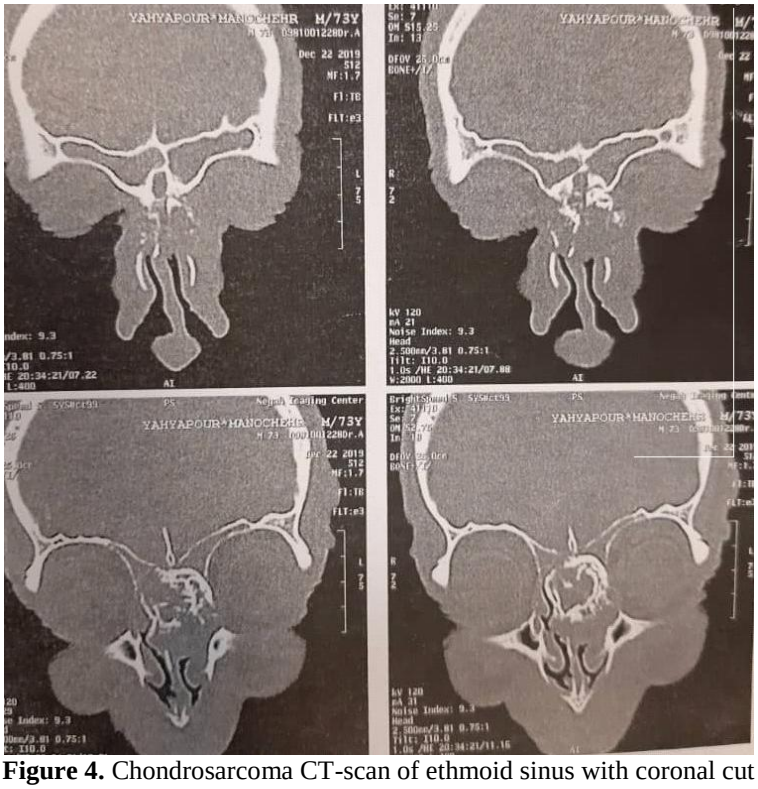

Figure 4. Chondrosarcoma CT-scan of ethmoid sinus with coronal cut

Discussion

Chondrosarcoma is a tumor that grows very slowly, which therefore does not cause obvious clinical symptoms unless symptoms occur in other organs through pressure (like our patient who first refereed to an ophthalmologist with swollen middle canthus of the left eye without vision symptoms). Considering its slow growth, the patient often presents late. As a result, the tumor is large

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upon referral. This tumor is very rare in the maxillofacial region and occurs mostly in the maxilla of the maxillofacial region, but has also been reported in the mandible, nasal septum, and paranasal sinuses (The site of involvement in our patient was the posterior part of the nasal septum). The etiology of chondrosarcoma is unknown, although normal fetal cartilage remains are referred to here.

Sometimes it occurs in patients after radiotherapy. Although the most common sarcoma occurs after radiation therapy for osteosarcoma, fibrosarcoma and chondrosarcoma have also been reported (4).

It is seen on CT scan as nodular or plaque-like calcification in 85% of patients.

Different surgical procedures are used, the best of which is craniofacial technique, but other techniques such as lateral rhinotomy and endoscopy have also been reported (5).

Overall, the treatment includes a complete surgical resection, and recurrence will certainly occur in case of incomplete resection. In some cases, it is also recommended following radiotherapy surgery, including:

• Non-surgical local recurrence
• Clear resection margins during surgery
• Positive histopathological margin, in which radiotherapy is recommended (6).

Death occurs due to the local spread of the tumor, especially in the case of brain metastases.

One of the differential diagnoses of chondrosarcoma is chondroblastic osteosarcoma, which is important in determining the type of treatment because chemotherapy has a special place in the treatment of osteosarcoma, unlike chondrosarcoma (7). The most appropriate treatment for chondrosarcoma is extensive surgery followed by long-term follow-up due to high local recurrence risk (7). Distant metastases have been seen even more than two decades after infection (8).

Conclusion

Chondrosarcoma is a very rare tumor in the head and neck region, especially in the maxillofacial region, and its diagnosis is of particular importance due to its different treatment as compared to other tumors.

In any patient with obstructive symptoms or epistaxis, benign sinonasal tumors should be taken in to consideration because late diagnosis of these tumors can cause serious complications for the patient due to their proximity to the eyes and brain. Moreover, if treated, complete resection should be taken into account otherwise recurrence will occur.

In the case of chondrosarcoma, a good prognosis awaits the patient especially in cases of complete resection and negative positive resection margin.

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Conflicts of Interest

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