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Case Report

Sinonasal Chondroscarcoma: A Case Report

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Abstract

Chondrosarcoma is a very destructive malignant tumor of cartilage, bone and mesenchymal origin. Localization in the head and neck is rare and the sino-nasal site is even rarer. We report a case of chondrosarcoma of the nasal cavities and sinuses. The aim of our work is to show the importance of clinical, endoscopy and imaging in the diagnostic presumption, to discuss the choice of surgical technique and postoperative monitoring. We will highlight the difficulties that this tumor poses for the pathologist to differentiate between chondroma and chondrosarcoma.

Key words: Naso-sinus chondrosarcoma, malignant tumor, maxillary sinus.

INTRODUCTION

Chondrosarcomas (CS) are rare, slow-growing, heterogeneous malignant bone tumours that produce a cartilage matrix, preferentially affecting males, and the frequency peak is observed between 40 and 60 years of age. These are the third most common malignancy after myeloma and osteosarcoma, but only 5–10% of CSs are found in the head and neck area. The most common sites of head and neck chondrosarcoma are the mandible, paranasal sinuses, maxilla, and rarely, the nasal septum. The aim of this report is to describe the CT and MRI aspects of symptomatic sinonasal chondroscarcoma, and to insist on the treatment mainly based on endoscopic surgery.

CASE DESCRIPTION

We report a case of a 65-year-old patient complaining of bilateral nasal obstruction with purulent rhinorrhea and epistaxis of small abundance, associated with a chronic headache, progressive swelling and deformation of the left nostril. Endoscopic endonasal examination shows a tumor process obstructing the left nostril and close to the vestibule, bleeding on contact and covered with purulent secretions, destroying the nasal septum, and extending to the left nostril. Oropharyngeal examination notes a bulging of the tumor through the soft palate.

Ophthalmologic examination did not show diplopia or reduced visual acuity. Neurological examination, especially of the cranial pairs, is normal. There were no lymph nodes. (figure1).

Sinonasal CT scan shows (Figure 2, Figure 3) a necrotic tissue process centered on the nasal cavities, strongly enhanced after the contrast, occupying the ethmoido-sphenoidal complex filling the two maxillary sinuses with bone lysis. We did not note any calcifications. A biopsy under local anesthesia whose histological and immunohistochemical study concluded to the diagnosis of myxoid chondrosarcoma.

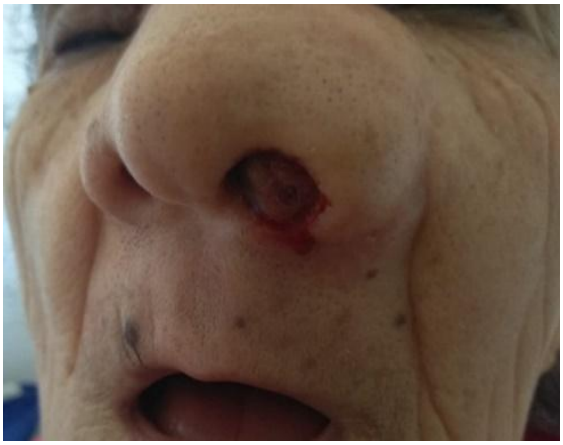

Fig-1: Tumor process obstructing the left nostril and arriving at the vestibule, bleeding little on contact and covered with purulent secretions destroying the nasal septum and extending to the left nostril.

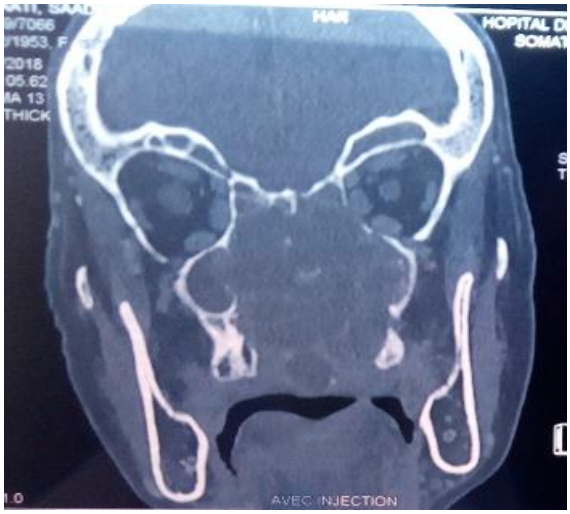

Fig-2: Nasosinus CT axial slice showing a tissue process occupying the right ethmoid sphenoid complex extended to the ipsilateral maxillary sinus and to the contralateral nasal fossa with multiple bone lyses

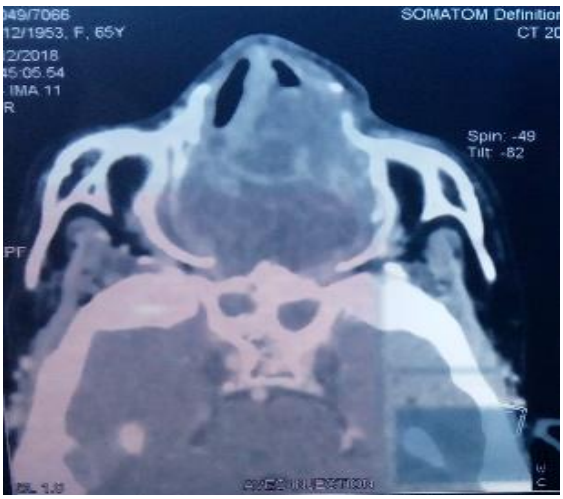

Fig-3: Coronal nasosinus CT scan showing extensive tumor process in the right orbit after lysis of its medial bone wall and lysis of the ethmoid lamina. Presence of calcification in the tumor mass.

After consultation with anesthesia and patient consent, she underwent endoscpic endonasal surgery with complete resection of the tumor. Histopathology and immunohistochemical confirms the diagnosis. The scanographic control is satisfactory. Our patient is then referred for radiotherapy.

DISCUSSION

Chondrosarcoma is a heterogeneous group of malignant tumors of cartilaginous origin, but also of bone and mesenchymal origin [1, 2]. The localization in the head and neck is rare, it represents 0.1% of carcinomas in this region [3], and chondrosarcoma of the sinuses of the face is still very rare. The usual sites of maxillofacial chondrosarcoma are the nasal cavities, the paranasal sinuses and the mandible. The male predominance [4] is noted by several authors, often between the fourth and seventh decades [5], our patient falls within this age range. Chondrosarcomas originating in cartilage and soft tissue are common in men after 50 years of age and chondrosarcomas of bone origin are common in women and patients under 50 years of age [3]. Lymph node and distant metastases are rare and represent 5.6% and 6.7% respectively [6].

The clinical expression of sinus chondrosarcomas of the face is like all malignant nasosinus tumors. We can note a facial pain of varying intensity, headaches, unilateral or bilateral nasal obstruction or epistaxis. Depending on the intensity of the extension to neighboring structures there may be visual signs, dental abnormalities or neurological signs involving damage to the cranial or cerebral pairs [6]. Clinical imaging is based primarily on CT and MRI. The CT scan shows a lobulated tumor with irregular contours, destructive and lower in density than bone, sometimes with calcifications. The CT provides details on bone destruction including the riddled blade of the ethmoid, the walls of the orbit, the bony palate and the infra temporal fossa. MRI specifies the extension to mainly cranial nerves and soft tissues, it differentiates between granulomatous tissues and recurrences during the monitoring of operated chondrosarcomas [7]. MRI specifies the extension to mainly sensory soft tissues; it differentiates between granulomatous tissue.

The biopsy is easy with endonasal endoscopy. The definitive diagnosis is histological and immunohistochemical; the difference between chondroma and chondrosarcoma poses difficulties for pathologists [4]. Chondrosarcomas are classified into three grades based on tissue density, nuclear differentiation and nucleus size [8]. The histological types are the myxoid variant same of our patient, which is more of soft tissue than bone origin, the mesenchymal variant is the most aggressive and occurs in two thirds of cases before 30 years of age and an advanced grade [9] and the dedifenciated variant. The treatment is essentially surgical associated with radiotherapy despite the difference in opinions on the radiosensitivity of chondrosarcomas. Chemotherapy has a limited role in this treatment, indicated in cases of high grade malignancy, mesenchymal chondrosarcoma and in recurrence or metastasis [9]. The 5-year survival is 44 to 87% [9], the prognostic factors are, age, grade, primary tumor site and myxoid or mesenchymal variant.

CONCLUSION

Chondrosarcoma of the sinuses of the face is a rare and aggressive tumor, with slow evolution. Clinical imaging is very important in all stages of diagnosis, therapy and monitoring. Surgical is the key point for a

successful treatment followed by radiotherapy in order to optimize prognosis and to lower recurrences.

REFERENCES

1. Abouhanine, O., Merzem, A., Ndayishimiye, V., Amriss, O., Belgadir, H., Moussali, N., & El Benna, N. (2020). Sinonasal Chondrosarcoma, an Unusual Location. European Journal of Case Reports in Internal Medicine, 7(12).
2. Touati, M. M., Chihani, M., Darouassi, Y., Lakouichmi, M., Tourabi, K., Bouaity, B., & Ammar, H. (2014). Le chondrosarcome naso-sinusien: à propos de deux cas et revue de la literature. The Pan African Medical Journal, 19.
3. Douis, H., & Saifuddin, A. (2013). The imaging of cartilaginous bone tumours. II. Chondrosarcoma. Skeletal radiology, 42(5), 611-626.
4. Krömer, J. H., Ludwig, K., Bürger, H., & Alberty, J. (2002). Chondrosarkom des Siebbeins und der Keilbeinhöhle. Laryngo-Rhino-Otologie, 81(10), 702-705.
5. Abouhanine, O., Merzem, A., Ndayishimiye, V., Amriss, O., Belgadir, H., Moussali, N., & El Benna, N. (2020). Sinonasal Chondrosarcoma, an Unusual Location. European Journal of Case Reports in Internal Medicine, 7(12).
6. Lee, S. Y., Lim, Y. C., Song, M. H., Seok, J. Y., Lee, W. S., & Choi, E. C. (2005). Chondrosarcoma of the head and neck. Yonsei Medical Journal, 46(2), 228.
7. Lloyd, G., Lund, V. J., Howard, D., & Savy, L. (2000). Optimum imaging for sinonasal malignancy. Journal of laryngology and otology, 114(7), 557-562.
8. Lloyd, G., Lund, V. J., Howard, D., & Savy, L. (2000). Optimum imaging for sinonasal malignancy. Journal of laryngology and otology, 114(7), 557-562.
9. Madani, G., Beale, T. J., & Lund, V. J. (2009, February). Imaging of sinonasal tumors. In Seminars in Ultrasound, CT and MRI (Vol. 30, No. 1, pp. 25-38). WB Saunders.