LIPOSARCOMA OF THE NASOPHARYNX: A case report

Andrea Bianco MD1,2, Gioconda Porras MD3, Esperanza García MD1, Mariana Sánchez R MD1,3, Gabriela Agostini MD1,4
1Clinica El Avila, 2Hospital Dr. Leopoldo Manrique Terreiro, 3Hospital Dr. Domingo Luciani, 4Hospital Universitario Dr. Peset
Caracas – Venezuela, Valencia - España

ABSTRACT

A 29 year-old female with a two years history of nasal congestion, nasal voice and oral breathing. High-resolution computed tomography (CT), as well as magnetic resonance imaging (MRI), showed a mass in nasopharynx with no patterns of invasion into the surrounding tissues. She was treated only with complete excision of the lesion. Subsequent tissue sampling demonstrated features consistent with well differentiated liposarcoma. After fourteen months from surgery the patient was disease free. We only found four cases reported on literature. Therefore with this case we want to reinforce the notion that while this is an uncommon entity, liposarcoma should be still considered as part of the differential diagnosis in patients with rare cases of nasal obstructive symptoms.

INTRODUCTION

Liposarcomas, are soft-tissue tumors that commonly affect the retroperitoneum. In head and neck region comprise 1.8-6.2% of all cases. In nasopharynx are exceptionally rare. We report our experience with one case of well differentiated liposarcoma in nasopharynx and discuss the diagnostic challenges posed by a rare entity in this anatomical location.

CASE REPORT

A 29 year-old female presented to our practice with 2 years history of nasal congestion, nasal voice and oral breathing that did not improve with medical treatment. Nasopharyngeal endoscopy revealed a grayish right-sided mass, situated at the posterior wall of the nasopharynx. High-resolution computed tomography (CT), as well as magnetic resonance imaging (MRI), showed a mass, measuring approximately 3x3 cm, with no patterns of invasion into the surrounding tissues. The lesion showed heterogeneous and predominantly high signal intensity on T1 weighted imaging and low signal intensity on the fat-saturated T2 weighted sequences. The tumor was completely resected through an intranasal approach with grossly clear margins. The patient had an uneventful postoperative recovery. The histopathological examination showed a well differentiated liposarcoma with clean margins. Immunoperoxidase stains were positive for S100 protein. Six months later the patient underwent surgery for recurrent tonsillitis, performing tonsillectomy. Curettage of the posterior wall of the nasopharynx and cervical lymph node excision biopsy without signs of recurrence. Fourteen months after original surgery there are still no signs of recurrence on follow-up endoscopy and MRI.

DISCUSSION

Liposarcoma, described by Virchow in 1856, accounts 15% of all soft tissue sarcomatous tumours in the body. Only 1.8-6.2% occur in the head and neck region, mostly affecting the neck, larynx and hypopharynx. It has a peak occurrence between the 5th and 7th decade, a slight male preponderance and there are no known association with ethnicity or geography. In the reported cases of nasopharyngeal lesions, as well as in our case, the main symptoms were nasal obstruction that did not improve with medical treatment. Most authors agree that the imaging modality of choice is MRI, showing a fatty, high intensity on T1 weighted sequences and intermediate signal on T2 weighted sequences, with signal attenuation following fat saturation. However, CT is still recommended, especially when data regarding bony or cartilage erosion is required.

On histology, the characteristic cell is the lipoblast. These cells have a characteristic hyperchromatic “chicken claw” shaped nucleus that is indented by cytoplasmic fat globules. The current classification system accepted by the World Health Organization for liposarcomas consists of five subtypes: well differentiated, myxoid, dedifferentiated, round-cell and pleomorphic. The latter three subtypes are considered to represent the poorly differentiated high-grade liposarcomas. It represents diagnostic challenges because it could not be diagnosed by an intraoperative frozen samples.

Provided that nasopharyngeal liposarcomas are exceedingly rare, there are very limited reports in the literature with regard to the management of such malignancies. Most therapeutic protocols and experience are basically based on treatment strategies involved in liposarcomas of the head and neck or another anatomic regions. It is primarily a surgical disease. Wider surgical excision alone is considered the main goal for low grade liposarcomas. Sometimes radical tumor excision is not possible, mainly due to anatomical limitations correlated with the site of the lesion, which increases the rate of local recurrence in low-grade lesions or distant metastases in high-grade lesions such as round-cell or pleomorphic liposarcomas. In that cases, most authors agree that radiation therapy as adjuvant treatment attempt to reduce the risk of local recurrence. The role of chemotherapy is less defined; some authors support the use of neoadjuvant chemotherapy regimens in selected patients with high-grade tumors.

In fact, all cases of nasopharyngeal liposarcomas, were related with various difficulties, affecting treatment strategy. Our case, was the first case treated only with complete excision along wide margins being free of disease after fourteen months.

CONCLUSIONS

Liposarcoma is a soft tissue malignant tumor that exceptionally develops in nasopharynx, with only four cases having been described in the literature. The natural history and therefore prognosis is largely determined by histologic grade. Treatment of choice is surgical excision with the wider possible margins followed by postoperative radiotherapy or chemotherapy in selected cases.

REFERENCES

- Papacharalampous, G: et al. Liposarcoma of the Nasopharynx: Diagnosis and Management of a Rare Diagnostic Entity