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LARGE EXTRANODAL NON HODGKIN'S LYMPHOMA OF THE PARAPHARYNGEAL SPACE

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Abstract

Of all head and neck tumors, 0.5% to 0.8% of them are localized in the parapharyngeal space. Non-Hodgkin's lymphomas in this site are extremely rare. There are described in literature as either isolated cases or small series of tumors of that space. We are showing a case of a younger man presented with the recent facial nerve paralysis, hearing loss, otalgia and on the examination seen bulged right side of the soft palate and medialization of the pharyngeal wall. The biopsy was performed transorally. The pathohistology finding described a large B cell non-Hodgkin´s lymphoma. Usually, the parapharyngeal tumors are benign and the surgery is the treatment of choice. In this case patient underwent chemotherapy. We point out, although rare, extranodal non-Hodgkin's lymphomas are possible pathological findings in the head and neck. Because of different treatment it is of great importance to know when we deal with this kind of pathology.

Key words: extranodal lymphoma, non-hodgkin lymphoma, parapharyngeal space, rare tumors

Introduction

Non Hodgkin's lymphoma occurs in extranodal head and neck sites in only 10% of cases (1). Primary malignant lymphoma of the parapharyngeal space is extremely rare. Such cases are described as either isolated cases or small series of tumors of that space (2,3).

Case report

A 32-year old man was referred to our department because of peripheral paresis of the right facial nerve, bloody nasal discharge, pain in the right ear accompanied by hearing loss and the right-sided headache. The symptoms had started two months prior to his visit, the first one being the pain followed by hearing loss, which were intensifying. Because of the painful swallowing, he started losing weight. His breathing through the nose was difficult and he lately could not breathe through his right side at all.

Clinical examination showed peripheral paresis of the right facial nerve, fixed and bulged right side of the soft palate and medialization of the right palatal tonsil. Soft palate mucosa was intact and unchanged. Anterior rhinoscopy revealed passable nasal cavities, while nasal endoscopy showed that the right choana is closed by a solid tumor mass of livid-brown color, pushed into it. B*y posterior rhinoscopy a* solid tumor mass that completely filled the right half of the nasopharynx was seen. The neck palpation did not reveal enlarged lymph nodes.

Computed tomography (CT) and magnetic resonance imaging (MRI) of the neck revealed an expansive mass, measuring 50 x 37 x 66 mm, that occupied the right parapharyngeal space. It laterally expanded to the ramus of the mandible, and at the back to the temporal bone pyramid. It also dislocated the neurovascular bundle posterolaterally, while medially filled almost the entire nasopharynx, and partialy the right side of oropharynx

and hypopharynx. Lymph nodes in the neck area were within their physiological limits (Figure 1 and Figure 2). Cytological puncture of the described formation through the soft palate suggested the non-Hodgkin lymphoma, but needed the histopathologic verification. A biopsy was first done transorally using a sample from nasopharynx. However, due to inadequate amounts of material needed for the diagnosis, the procedure had to be redone, and a larger sample was taken in general anesthesia. CT of the thorax, abdomen and pelvis showed that there were no enlarged lymph nodes in those areas. None of the peripheral lymph nodes were pathologically increased either. Histopathologic finding supplemented with immunohistochemistry verified the diffuse large B-cell non Hodgkin's lymphoma (DLBCL, CD20 +). As recommended by oncologists, the patient was treated with chemotherapy.

Discussion

Of all head and neck tumors, 0.5% to 0.8% of them are localized in the parapharyngeal space (4). Because of the few and late symptoms they give, they are not easy to recognize and diagnose. In many cases they can be presented as asymptomatic mass. If the symptoms are present, the most common are dysphagia, foreign body sensation and pain (8). In our case its obviously that first symptoms appeared in advanced phase of the tumor growth when nasopharyngeal extension starts causing compression on Eustachian tube. 70-80% of the parapharyngeal space neoplasms are benign and 20-30% malignant. Pleomorphic adenoma is the most common neoplasm, followed by miscellaneous benign tumours, paraganglioma and neurogenic tumors (5,6).

Despite the use of modern diagnostic devices such as multi slice computed tomography, magnetic resonance imaging, angiography, ultrasound controlled fine needle aspiration cytology (FNAC) – it still represents a diagnostic problem. There are no specific

radiological features of parapharyngeal space lymphoma, however imaging is useful in assessing of the extent. As in our case, fine needle aspiration cytology does not contribute significantly to the differential diagnosis of parapharyngeal tumors. The rate of nondiagnostic samples is significant (25%) due to excessive bleeding encountered in this location and other technical problems relating to adequately targeting (7). Also, the limited value of FNAC in diagnostic of the lymphomas is well known and described. Today, the gold standard method in diagnosis is pathohistology and immunohistochemistry (8).

Differentiation of lymphomas from other tumors of the parapharyngeal space is important in designing treatment. Surgical treatment is usually recommended for parapharyngeal tumors. In casse of lymphoma radiation therapy is the primary modality for localized disease (stages I and II), especially for low-grade lymphomas. Combination of chemotherapy with or without radiation is recommended for more advanced disease and for intermediate and high-grade lymphomas. Surgery is limited for establishing the diagnosis (1).

We point out, although rare, extranodal non-Hodgkin's lymphomas are possible pathological findings in the head and neck. Because of different and specific treatment it is of great importance to know when we deal with this kind of pathology.

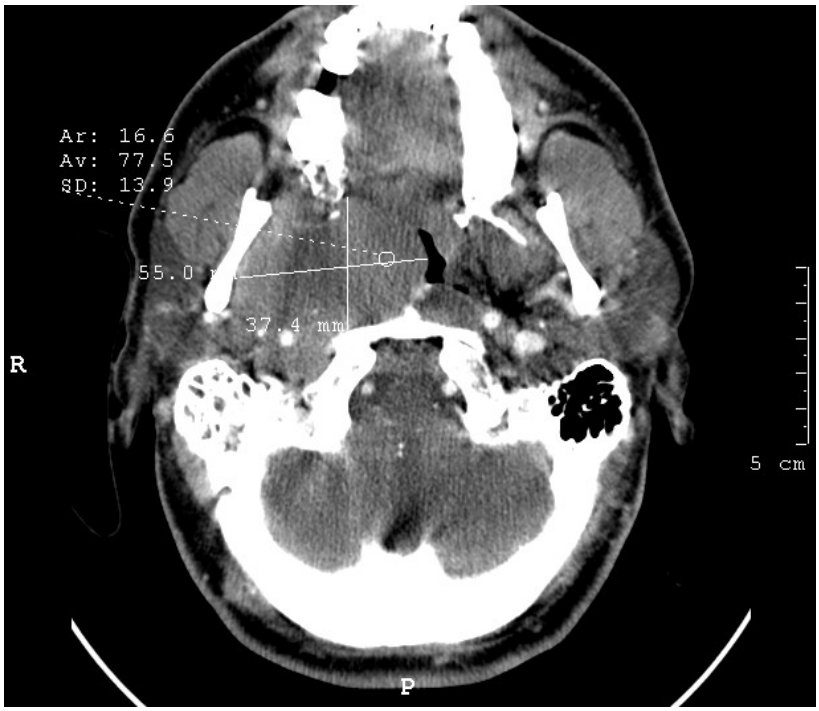

Figure 1

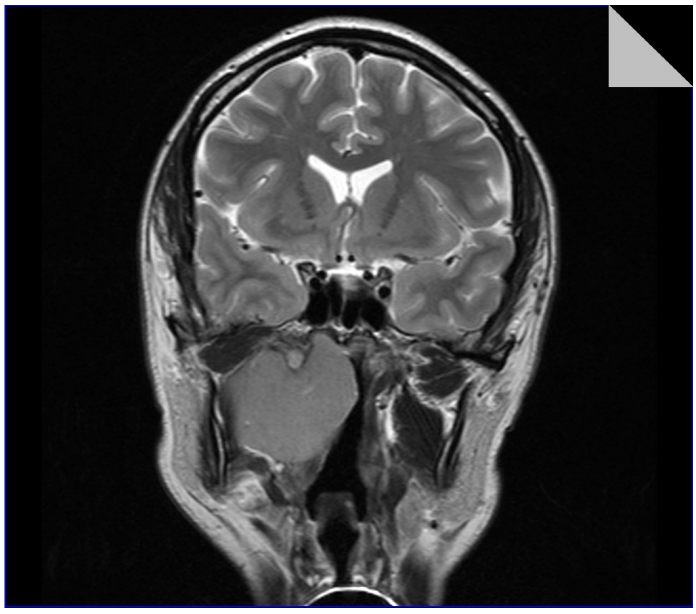

Figure 2

References:

1. Hanna E, Wanamaker, Adelstein D, Tubbs R, Lavertu P. Extranodal lymphomas of the head and neck. Arch Otolaryngol Head Neck Surg 1997;123:1318-23.

2. Qureshi SS, Shet TM, Nagarajan G, Dcruz A. Extranodal non-Hodgkin's lymphoma of the parapharyngeal space. Indian J Med Sci 2006; 60 (4):159-61.

3. Tülin Kayhan F, Ozkul N. Case report: extranodal non-Hodgkin's lymphoma of the parapharyngeal space. Auris Nasus Larynx 1999; 26 (2):201-5.

4. Weber A, Tannapfel A, Kösling S, Bootz F. Parapharyngeal space-occupying lesions. Differential diagnosis based on case examples. HNO 2002; 50 (3):223-9

5. Dimitrijevic MV, Jesic SD, Mikic AA, Arsovic NA, Tomanovic NR. Parapharyngeal space tumors: 61 case reviews. Int J Oral Maxillofac Surg. 2010 Oct;39(10):983-9.

6. Suárez-Fente V, Lorente-Pendás JL, Gómez-Martínez J, García-González LA, López-Alvarez F, Suárez-Nieto C. Primary tumours of the parapharyngeal space. Our experience in 51 patients. Acta Otorrinolaringol Esp. 2009 Jan-Feb;60(1):19-24.

7. **Oliai BR**, **Sheth S**, **Burroughs FH**, **Ali SZ**. "**Parapharyngeal** space" tumors: a cytopathological study of 24 cases on fine-needle aspiration.**Diagn Cytopathol.** 2005 Jan;32(1):11-5.

8. Ensani F, Mehravaran S, Irvanlou G, Aghaipoor M, Vaeli S, Hajati E, Khorgami Z, Nasiri S. Fine-needle aspiration cytology and flow cytometric immunophenotyping in

diagnosis and classification of non-Hodgkin lymphoma in comparison to histopathology. Diagn Cytopathol. 2010 Nov 12; doi; 10.1002/dc.21561.

Figure 1 - Axial view of CT scan showing the extent of tumor.

Figure 2 - Coronal MRI view revealed a expansive mass filling the right parapharyngeal space.