

### MARGINAL ZONE LYMPHOMA MIMICKING LARYNGEAL SOUAMOUS CELL CARCINOMA

Abstract

symptoms

lymphadenopathy,

Laryngology

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MARGINAL ZONE LYMPHOMA MIMICKING

Lymphomas are malignant masses arising from lymph nodes and other lymphatic tissues. Primary lymphoma

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LARYNGEAL SQUAMOUS CELL CARCINOMA

### Özet

#### LARİNGEAL SKUAMÖZ HÜCRELİ KARSİNOMU TAKLİT EDEN MARJİNAL ZON LENFOMA

Lenfomalar, lenf bezlerinden ve diger lenfatik dokulardan kaynaklanan kötü huylu kitlelerdir. Larenksin primer lenfoması ise son derece nadirdir, tüm primer laringeal neoplazmaların %1'inden azını oluşturur. Larenks lenfomasının klasik semptomları arasında lenfadenopati, disfaji, ses kısıklığı ve nefes darlığı bulunur ve sistemik semptomlar daha az yaygındır. Bu olgu sunumu ile biz, ilk bakışta larenks SCC gibi görünen ve yerleşim olarak da atipik denebilecek bir bölgede yerleşen bir laringeal lenfoma vakasını bildirerek larenks lenfomasının klinik özelliklerine dikkat çekmeye çalıştık. laryngeal SCC and is located in an area that can be

called atypical.

Anahtar kelimeler: Larinks, Lenfoma

Keywords: Larynx, Lymphoma

of

### Introduction

Lymphoma is malignant mass arising from lymph nodes and other lymphatic tissues. Although there are many subtypes, the disease is generally divided into two main groups as Hodgkin and Non Hodgkin lymphoma (NHL). NHL can also be seen in extranodal regions, the head and neck (salivary gland, larynx, nose and paranasal region, etc.) is the second most common site of NHL. It is more common in men than in women [1,2]. In the larynx, it is usually involved in the supraglottic region [3].

Among malignant tumors of the larynx, squamous cell carcinoma (SCC) is the most common pathological type, while primary lymphoma of the larynx is extremely rare. It accounts for less than 1% of all primary laryngeal neoplasms [4]. Classical symptoms of laryngeal lymphoma include lymphadenopathy, dysphagia, hoarseness, and dyspnea, and systemic symptoms are less common [5].

In this case report, we tried to draw attention to the clinical features of laryngeal lymphoma by reporting a case of laryngeal lymphoma, which at first glance looks like laryngeal SCC and is located in an area that can be called atypical.

#### **Case Report**

An 84-year-old male patient was admitted to our clinic with the complaint of hoarseness that persisted for more than two months. The patient also had complaints of cough and dysphagia. The patient did not have complaints such as fever, night sweats, insomnia or weight loss. The patient had no history of smoking and alcohol consumption. His history was unremarkable except for prostatic hypertrophy. Neck examination revealed palpable lymphadenopathy in the right submandibular region. In the flexible laryngoscopy, a smooth-surfaced submucosal mass extending from the right pyriform sinus to the vocal cord was detected (Figure 1). Contrast-enhanced magnetic resonance imaging (MRI) of the patient showed well-defined homogeneous contrast enhancement with dimensions of 32x12 mm, extending from the supraglottic level to the pyriform sinus. The lesion was found to have signaling properties similar to lymph nodes in the neck. It was observed that the right pyriform sinus was obliterated due to the lesion (Figure 2).



Figure 1 Flat-surfaced submucosal mass extending from the right piriform sinus to the vocal cord



Figure 2 A well-circumscribed mass extending from the supraglottic level to the piriform sinus

It was decided to take biopsy from the patient by direct laryngoscopy. In the immunohistochemical examination of the biopsy, atypical lymphoid cells showed diffuse expression with CD20 and Bcl-2, focal positivity with CD5, and small patch positivity with CD10 and Bcl-6.(Figure3-4) Reactive staining was observed with T cell markers CD3 and CD2. Since it suggested mature B-cell lymphoma as a result of immunohistochemical evaluations, it was suggested to perform an excisional biopsy from the lymph node in the neck for a definitive diagnosis. As a result of the excisional biopsy, the patient was diagnosed with low-grade B-cell marginal zone lymphoma.



**Figure 3** Abundant atypical lymphoid cells (hematoxylin-eosin stain, original magnification X150)



**Figure 4** Marginal zone cells and plasma cells are stained with CD20 (anti-CD20, original magnification x150).

### Discussion

The most common extranodal head and neck regions of primary NHL are the paranasal sinuses, salivary glands, and thyroid gland [2]. Since the laryngeal region contains less lymphoid tissue compared to other areas in the respiratory tract, lymphomas of this region are observed less frequently [6]. NHL is presumed to originate from two locations within the larynx; predominantly from B-cell-derived clusters of specialized lymphoid tissue in the submucosa or from mucosal-associated lymphoid tissue (MALT) in the aryepiglottic folds and epiglottis [7]. The most common site of development of primary laryngeal lymphomas is the supraglottic region. In our case, the laryngeal lymphoma was MALT type and extended from the supraglottic region to the pyriform sinus.

Mucosal-associated lymphoid tissue lymphoma occurs in extranodal, mucosal lymphoid tissue and represents up to 7.6% of all lymphomas. In contrast to low-grade nodal B lymphomas, which generally spread at the time of diagnosis, its spread is more limited [8]. The most common locations are the mucosa of the gastrointestinal tract. However, they can also occur in the lungs, salivary glands, skin, and other areas, including the thyroid. It is thought that mucosa-associated lymphoid tissue lymphomas develop from lymphocytic tissue acquired during a chronic inflammatory or autoimmune process [6-8]. In our case, however, no chronic inflammatory diseases were found.

In laryngeal lymphoma cases, endoscopic examination usually shows a smooth, polypoid or submucosal mass, ulcerated lesions are rarely observed. The mean age at diagnosis of the patients is reported as 70, and the male/female ratio is different in many series [9]. Although imaging techniques such as computed tomography and MRI can be helpful in the evaluation of any laryngeal neoplasm; definitive diagnosis is made by biopsy [7]. Primary laryngeal lymphoma is more commonly of B-cell origin, but T-cell and NK-cell lymphomas have also been reported and are more difficult to diagnose, often requiring deep and sometimes repeated biopsy [10].

Today, lymphoma treatment is based on an integrated medical approach that combines chemotherapy, radiotherapy, immunotherapy, and surgery. Chemotherapy and radiotherapy are the most common therapeutic strategies for the treatment of laryngeal lymphomas. The prognosis of laryngeal lymphoma depends on many factors, including an accurate biopsy, presence of B symptoms, cell type, gender, staging, lymph node involvement, and response to therapy. Therefore, individualized treatment is advocated in the treatment of laryngeal lymphoma

[11].

### Conclusion

In this report, we presented a case of a patient who presented with a laryngeal mass, and performed direct laryngoscopic surgery with the prediagnosis of metastatic laryngeal SCC. As a result of the biopsies, the patient was diagnosed with B-cell marginal zone lymphoma. In this case, we tried to draw attention to the possibility of rare diagnostic lesions in a patient presenting with a laryngeal mass.

Informed consent was obtained from the patient for this report.

#### Informed Consent: from the patient

### References

- 1. Zhao P, Zhou Y, Li J. Primary Laryngeal Lymphoma in China: A Retrospective Study of the Last 25 Years. J Laryngotol. 2019;19:1-4.
- 2. Scott AH, et al. Epidemiology and Prognostic Indicators in Laryngeal Lymphoma: A Population-Based Analysis. Laryngoscope. 2018;128(9):2044-9.
- Çıkrıkçı S, Gülşen S, Durucu C, Primary T-cell non-Hodgkin's lymphoma of the larynx: A case report, J Surg Med., 2021;5(5):569-571
- 4. Horny HP, Kaiserling E, Involvement of the larynx by hemopoietic neoplasms. An investigation of autopsycases and review of the literature. PatholResPract1995;191:130–8
- 5. Hong SA, et al. Epidemiology and Prognostic Indicators in Laryngeal Lymphoma: A Population-Based Analysis, Laryngoscope, 2018, 128:2044-2049
- 6. Pak MW, Woo JKS, VanHasselt,T cell non-Hodgkin's lymphoma of the larynx and hypopharynx, Otolaryngol Head Neck Surg, 2019:121, 335-336.
- 7. Khamassi K, et al. Primary Lymphoma of the Larynx: A Case Report and Literature Review, Open Journal of Clinical Diagnostics, 2015, 5, 81-85
- 8. Yilmaz M, et al. Primary Marginal Zone B-Cell Lymphoma of the Larynx, The Journal of Craniofacial Surgery, 2012, 23(1):p e1-e2
- 9. Higoa R, et al. Primary diffuse large B-cell lymphoma of the Larynx, Auris Nasus Larynx, , 2022;14:50
- 10. Azzopardi CP, et al. The high and low grades of rare lymphoma involvement sites ,Case RepMed, 2014:284643
- 11. Fu Z, Sun W, Zhu X, Primary Laryngeal Lymphoma: A Rare Case Report and Clinical Characteristics in Chinese Patients, American Journal of Otolaryngology and Head and Neck Surgery, 2022; 5(1): 1168.