

Non-Hodgkin's Primary Lymphoma in the Base of Tongue: A Case Report

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Abstract- Although the most common site in Non-Hodgkin's Lymphoma (NHL) is the Waldeyer's ring, the involvement of the tongue is extremely rare. The present study revealed a 70-year-old female with primary non-Hodgkin's lymphoma (NHL) of the base of the tongue with the chief complaint of sore throat and dysphasia as a rare case report. The patient was expired 3 months after diagnosis because of the advanced stage of the disease and poor physical status. The diagnosis was confirmed as primary NHL diffuse large B cell type by histopathological and immunohistochemistry results.

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Keywords: Base of tongue; Waldeyer's ring; Non-Hodgkin's lymphoma; Diffuse large B cell lymphoma

Introduction

Lymphomas are malignant neoplasms of the lymphocyte cell lines and the second most common neoplasm of the head and neck, which is classified as either Hodgkin's (HL) or non-Hodgkin malignant lymphomas (NHML) (1). Waldeyer's ring is the primary site of Non-Hodgkin's Lymphoma (NHL) involvement in approximately 5 to 10% of all lymphomas (2,3). Although the most common site in the Waldeyer's ring is the palatine tonsil, the involvement of the base of the tongue is extremely rare (4,5). Most lymphomas in palatine tonsils are the B-cell type, and diffuse large B cell lymphoma (DLBCL) represents around 67-96%. The present study revealed Primary Non-Hodgkin's Lymphoma in the base of the Tongue (1,6).

Case Report

A 70-year-old female presented with a 1-month history of foreign body sensation in her throat associated with a sore throat, mild difficulty in swallowing (dysphagia), and right-sided pain of the tongue. Weight loss, nausea, night sweats, and fever were also reported. The patient's medical and family history was negative. Local examination revealed an ulcerative lesion involving the right margin of the tongue without any involvement in other areas.

Spiral computed tomography (CT) scan with and

without contrast was done, and as a result, systematic examination including respiratory, cardiac, central nervous system, and abdominal were normal except a nasopharynx and the base of tongue in the right side. Contrast-enhanced computed tomography (CT) neck revealed budding tissue lesion measuring 3.81 cm×4.13 cm of the right margin of the tongue and nasopharynx (Figure 1). The results of laboratory analyses obtained on admission were normal. Biopsy of the lesion on histopathological examination demonstrated the islands of larger cells with atypical vesicular nuclei and mitoses, which was compatible with Non-Hodgkin Lymphoma. Immunohistochemically, the neoplastic cells were positive for CD20 and CD3 and negative for CD30, CD4, CD5, CD8, and CD10 (Figure 2, 3). Eventually, a diagnosis of Non-Hodgkin's lymphoma diffuse large cell type of B phenotype was confirmed based on histopathological, immunohistochemical, and computed tomography (CT scan) results.

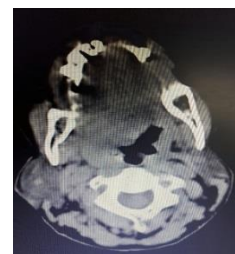


Figure 1. Neck CT imaging in the axial section was revealed a right-sided the base of tongue involvement

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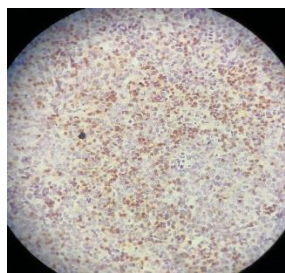


Figure 2. Histological examination of the tumor process, lymphomatous diffuse involvement of the tongue; lymphoid cells of large size with significant mitotic activity; diffuse and intense expression of CD3 in tumor cells

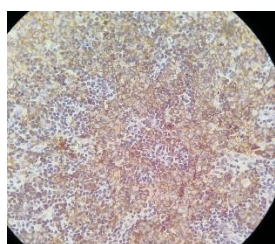


Figure 3. Histological examination of the tumor process, lymphomatous diffuse involvement of the tongue; lymphoid cells of large size with significant mitotic activity; diffuse and intense expression of CD20 in tumor cells

The patient refused to receive chemotherapy and underwent radiotherapy with 44 Gy in 22 fractions over a period of five weeks by 6 Mv photon beam on linear accelerator although the patient underwent radiotherapy, she died after 3 months because of poor physical condition and advanced stage of the disease.

Discussion

Lymphomas can be classified as either Hodgkin's lymphoma (HL) or NHL. Non-Hodgkin's represents a small percentage of oral malignancies (7,8). Although Waldeyer's ring (including tonsil, nasopharynx, and base of tongue) is the most common extranodal site, primary malignant lymphoma of the tongue is very rare. Peak incidence is in the 6-7 decades of life in published series with a male predominance (2,3,9). Diffuse large B-cell is the most common histologic type and is an aggressive variety and less commonly by T-cell lines. Clinical signs and symptoms are not specific, including a sensation of fullness in the throat, sore throat, dysphagia, odynophagia, otalgia, cervical adenopathy, tonsillar swelling, or snoring. Systemic symptoms such as fever, weight loss, and night sweats are uncommon and may develop in advanced stages. Localized non-Hodgkin's lymphomas (NHLs) of the head and neck are

treated with chemotherapy or/and combination radiotherapy. However, early-stage disease and combined therapy consisting of chemotherapy and radiotherapy lead to a satisfactory outcome in a patient with this uncommon neoplasm, the stage of tumor, and the aggressiveness of the malignant cell type almost had poor prognosis (10,11). Our case, a 70-year-old female with poor performance status and advanced stage of disease, will fall into the poor prognosis category (12,13).

Generally, the standard treatment for patients with early-stage oropharyngeal lymphoma is chemotherapy, followed by involved-field radiotherapy (IFRT). Our patient has only received radiotherapy and refused chemotherapy. Finally, the patient was expired 3 months after diagnosis because of the advanced stage of the disease and poor physical statue.

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References

1. Karanam L, Bakshi SS, Priya M, Coumare VN, Vijayasundaram S. Primary Non-Hodgkin's lymphoma of the tongue: A rare presentation. *J Dent Allied Sci* 2016;5:50-2.
2. Dehghan P, Kakhki S. Non-Hodgkin Lymphoma Presenting as Unilateral Tonsillar Hypertrophy: Case Report. *Acta Med Iran* 2018;56:617-9.
3. Maheshwari GK, Baboo HA, Shah NM, Patel MH, Shah R. Primary non-Hodgkin's lymphoma of the oral tongue. *Turk J Cancer* 2001;31:121-4.
4. Bechir A, Asma A, Nesrine A, Yosra BY, Badreddine S, Abderrahim K. Primary B cell lymphoma of the tongue base: a case report. *Pan Afr Med J* 2016;25:174.
5. Manchanda J, Gogia R, Tiwari A. Extranodal Non-Hodgkin's Lymphoma of Base of Tongue-Diagnosis by Fine Needle Aspiration Cytology. *Journal of KrishNna Institute of Medical Sciences University (JKIMSU)* 2016;5:138-40.
6. Aloulou S, Farhat H, Bosq J, Vanel D, Ribrag V, Turhan AG, et al. Hodgkin's disease primarily involving the oropharynx: case report and review of the literature. *Hematol J* 2002;3:164-7.
7. Vasilakaki T, Myoteri D, Tsavari A, Skafida E, Arkoumani E, Koulia K, et al. Localised extranodal non-Hodgkin's lymphoma of the tonsil: report of a rare case.

Non-Hodgkin lymphoma in the base of tongue

- OA Case Reports 2013;2:101.
8. Colleoni GWB, Oliveira JSR, Alves AC, Borducchi DMM, Segreto RA, Cervantes O, et al. Clinical management of six cases of low-risk primary tonsillar non-Hodgkin's lymphoma. *Sao Paulo Med J* 1999;117:215-7.
 9. Laskar S, Bahl G, Muckaden MA, Nair R, Gupta S, Bakshi A, et al. Primary diffuse large B-cell lymphoma of the tonsil: Is a higher radiotherapy dose required? *Cancer* 2007;110:816-23.
 10. Miller TP, Jones SE. Initial chemotherapy for clinically localized lymphomas of unfavorable histology. *Blood* 1983;62:413-8.
 11. Osuch-Wojcikiewicz E, Rzepakowska A, Bruzgielewicz A, Wieczorek J. Follicular (nodular) non Hodgkin's lymphoma of tonsil--case report. *Otolaryngol Pol* 2007;61:203-6.
 12. Mohammadianpanah M, Daneshbod Y, Ramzi M, Hamidzadeh N, Dehghani SJ, Bidouei F, et al. Primary tonsillar lymphomas according to the new World Health Organization classification: to report 87 cases and literature review and analysis. *Ann Hematol* 2010;89:993-1001.
 13. Yamanaka N, Harabuchi Y, Sambe S, Shido F, Matsuda F, Kataura A, et al. Non-Hodgkin's lymphoma of Waldeyer's ring and nasal cavity. Clinical and immunologic aspects. *Cancer* 1985;56:768-76.