Case Report
Middle East Journal of Cancer 2011; 2 (3 & 4): 125-128

Non-Hodgkin's Lymphoma of the Tongue Presenting as an Ulcerative Lesion

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Abstract

Malignant lymphoma may occur in the oral cavity and oropharynx, but is most commonly located in Waldeyer's ring, particularly in the palatine and lingual tonsil. The occurrence of malignant lymphoma in the tongue is very rare. Clinical features are nonspecific ulcerative lesions that do not heal. In the literature, the majority of cases are non-Hodgkin's lymphoma, diffuse large B cell type; however T-cell phenotype also may occur. We describe a 60-year-old man who presented with an ulcerative mass in the left lateral aspect of his tongue, unresponsive to medical therapy. After tissue biopsy, histopathological and immunohistochemical analyses confirmed a diagnosis of non-Hodgkin's lymphoma, diffuse large B cell type..

Keywords: Lymphoma, Tongue, Waldeyer's ring.

Introduction

The most common malignancy in the oral cavity is squamous cell carcinoma; however, malignant lymphoma may occur in the lymphoid tissue of Waldeyer's ring, the gingival area, buccal mucosa or palate. The typical clinical presentation is that of a soft, bulky mass covered by normal or ulcerated mucosa. Microscopically, most cases are diffuse large B-cell lymphomas. Some have tropism to the overlying epithelium, which suggests that malignant lymphomas of this region share some of the characteristics of so-called mucosa-associated lymphoid tissue (MALT) lymphoma.[1-3] Most head and neck non-Hodgkin's lymphomas (NHL), including oral lesions, are of B cell origin; diffuse large cell is the most common type. An increasing number of AIDS-related malignant lymphoma of the oral cavity of both B and T cell types have been reported, the former predominant.[4,5] In contrast to lymphomas of the nasal/ nasopharyngeal region those of tonsil and tongue are nearly always negative for Epstein-Barr virus.[6,7] The prognosis of NHL depends on the stage of the tumor, the

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Middle East Journal of Cancer

Received: April 3, 2011; Accepted: May 11, 2011

aggressiveness of the malignant cell type, and treatment response. Although lymphoma of tongue is uncommon, it should always be considered in the differential diagnosis of various benign and malignant lesions in this region because treatment and prognosis of this condition is very different.[5-7]

Case Report

The patient was a 60-year-old man, nonsmoker with a 1 month history of an ulcerated lesion in the left lateral border of his tongue, unresponsive to medical treatment. No weight loss or fever was reported. There was no history of hoarseness or any voice changes. His medical history was unremarkable. A cervical computed tomography scan revealed asymmetry of the tongue with a soft-tissue mass on the left with loss of intermuscular fat planes. No cervical lymphadenopathy was detected. Local examination revealed a 4×4 cm firm mass that involved the lateral margin of the tongue. The patient underwent surgery for an incisional biopsy. Histological evaluation revealed a sheet of large cells with ovoid vesicular nuclei, prominent nucleoli, and indistinct cell borders. In some areas, infiltration of these cells between the tongue muscle fibers was noted (Figure 1). All resected margins were free of tumor. The main differential diagnosis of this case was poorly differentiated carcinoma and amelanotic melanoma. To differentiate between them, immunohistochemistry (IHC) was performed for pancytokeratin, CD45, CD20, CD79a, CD3, vimentin, S-100, and HMB-45 (Dako, Denmark). LCA, CD20, and CD79a were strongly positive with a membranous pattern, whereas others were negative (Figure 2). According to these findings, the final diagnosis was primary non-Hodgkin's lymphoma, diffuse large B cell type (NHL-DLBL).

In order to perform tumor staging, the patient underwent additional clinical work up. Results of serum chemistries, coagulation profile and complete blood count were normal. Serology for human immunodeficiency virus (HIV) was negative. The chest X-ray, ortho-pantomogram (OPG), and thoracic and abdominal CT scan were normal.

The patient was treated with external beam

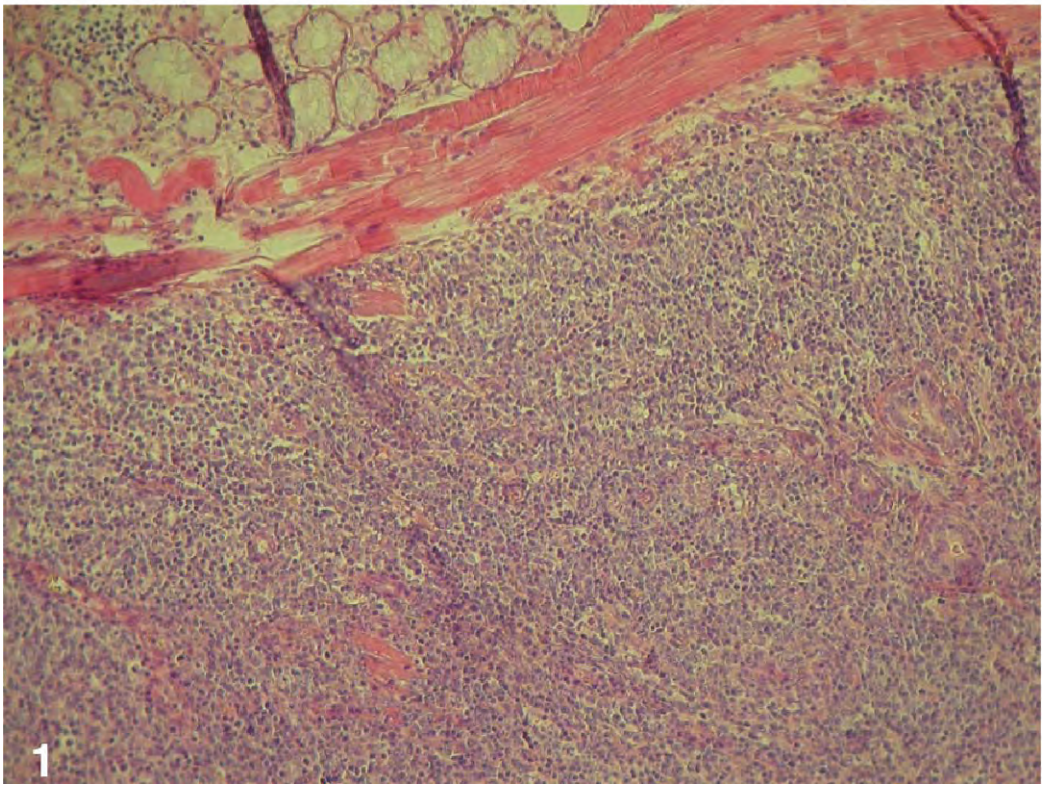

Figure 1. Infiltration of malignant cells between striated muscle fibers and minor salivary glands of the tongue. (H&E, 100×).

radiation (3600 cGy) and chemotherapy. Chemotherapy consisted of the following regimen: cyclophosphamide, hydroxydaunorubicin (Adriamycin), vincristine and prednisone (CHOP). There is no evidence of recurrence 24 months after treatment and he is currently in remission.

Discussion

The head and neck is the second most common region for extranodal lymphomas after the gastrointestinal tract.[8,9] Waldeyer's ring, which is an area encompassed by the nasopharynx, tonsil and the base of the tongue, is the most common area of malignant lymphoma involvement. The tonsil is the most frequent site, followed by the nasopharynx.[10,11] The tongue itself is an extremely unusual localization for isolated primary NHL.[8,9] Diffuse large B cell lymphoma (DLBCL) is composed of large transformed B cells with immunoblastic features, which may develop in both children and adults. The majority of reported cases have B cell phenotype. T cell phenotype is much more likely for sinonasal than oropharyngeal lymphoma.[12-15]

There is scant information about the etiological factors for primary lymphoma of the oral region. A few cases have been reported in association with AIDS. Oral lesions also seem to be quite sensitive to both radiotherapy and chemotherapy.[1,2]

In conclusion, although NHL involving the oral region is uncommon, it should be considered in the differential diagnosis of malignant lesions in this region, because treatment and prognoses for these conditions are quite different. A proper clinical evaluation, in addition to a histopathologic as well as immunohistochemical evaluation of the biopsy specimen is necessary for the correct diagnosis and assists with proper management.

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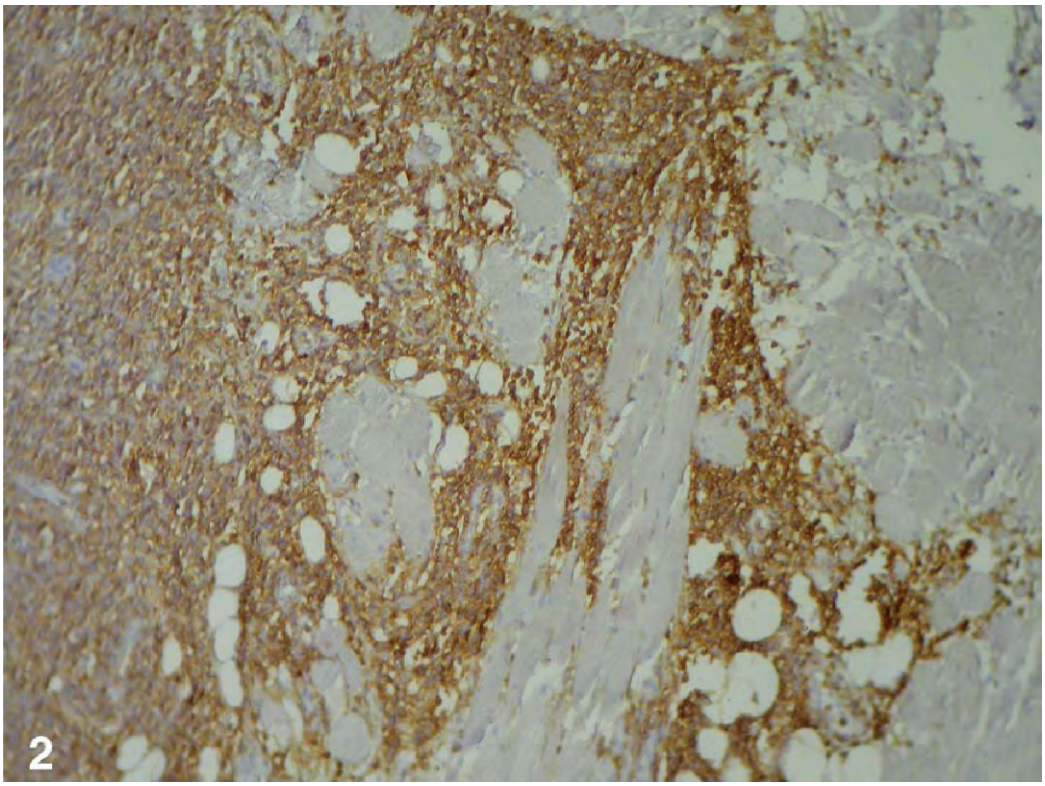

Figure 2. Malignant cells are CD20 positive as seen by immunohistochemical staining. (100×).

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