

Primary B Cell Lymphoma of the Tongue

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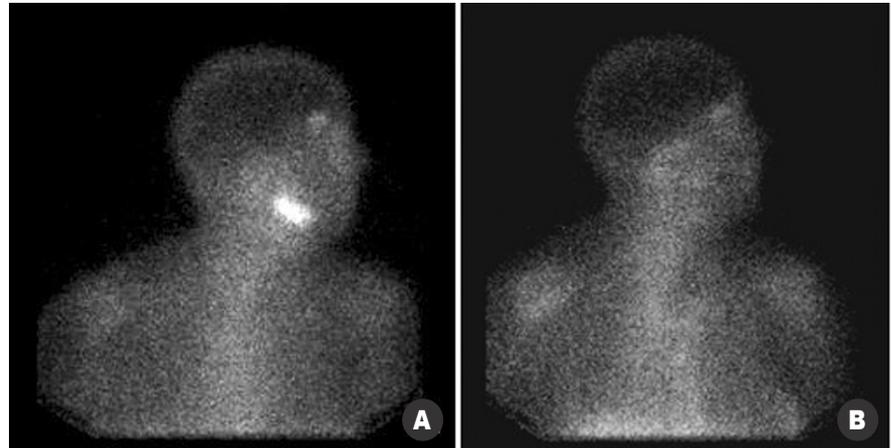
Lymphomas form a group of solid malignant tumors with a wide spectrum of clinical and pathological features. Between 10 and 40% of cases of non-Hodgkin's lymphoma are of extranodal origin. The extranodal lymphomas of the head and neck constitute 8–13% of all lymphomas. Waldeyer ring lymphomas make up 50–80% of the above and lingual tonsil lymphoma constitute about 3–18% [1].

Most of the few reported cases of primary extranodal non-Hodgkin's lymphoma of the tongue had associated cervical lymph node involvement and manifested as an ulcerated exophytic lesion [1]. We present a case that is unusual in that the only symptoms were dysphagia and a sore throat, without any superficial ulceration or lymph node involvement.

Patient Description

The patient, a 51 year old woman, presented with a 6 month history of dysphagia and right-sided throat pain radiating to the ear. No weight loss, night sweats or fever was reported. There was no history of shortness of breath, hoarseness or other voice change. Her medical history was unremarkable. No medications were taken on a regular basis, there were no known allergies and the patient was a non-smoker.

Oral examination by observation was normal, and no obvious asymmetry of the tongue base was noted. Digital palpation revealed a large sub-mucosal mass involving the right posterior oral tongue. There was no ulceration or superficial growth on the surface of the tongue, the right pha-



[A] Baseline gallium scan demonstrating increased uptake in the tongue.

[B] Repeated post-treatment gallium scan showing disappearance of the pathological uptake in the tongue.

ryngeal wall and tonsil were normal and no cervical lymph nodes were clinically apparent. No abdominal organomegaly was noted. The remainder of the physical examination was unremarkable. Results of serum chemistries were normal, as were the routine coagulation profile and complete blood count. Serology for human immunodeficiency virus was negative.

A cervical computed tomography scan revealed asymmetry of the posterior tongue with a soft-tissue mass on the right and loss of intermuscular fat planes. No enlarged cervical lymph nodes were seen. Thoracic and abdominal CT scan was normal. Bone marrow aspiration was normal. Planar gallium scintigraphy obtained 48 hours after the injection of Ga-67 citrate demonstrated an intensely increased uptake in the tongue congruent with the mass palpated on physical examination [Figure A]. A biopsy was performed. The histological examination revealed diffuse infiltration by malignant lymphoma with medium to large size lymphocytes.

A diagnosis of primary B cell lymphoma of the tongue was made based on findings of monotonous infiltration by large lymphoid cells with irregular nuclear membrane and prominent nucleoli, surrounding and entrapping the mucous glands and the musculature of the tongue. Immunohistochemical testing was positive for leukocyte common antigen and CD20 (Pan B cell marker).

The patient was treated with external-beam radiation (3600 cGy) and chemotherapy. Chemotherapy consisted of four courses of CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone). This treatment resulted in complete clinical resolution of the mass. Repeated gallium scan, after the completion of chemotherapy, shows disappearance of the pathological uptake in the tongue documented on baseline scan [Figure B]. The patient was considered to be a complete responder. There has been no evidence of disease for 57 months from the time of diagnosis.

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Comment

Non-Hodgkin's lymphoma of the tongue is very rare [1]. Differential diagnosis includes metastatic tumors in the tongue. These tumors account for 1% of all malignant tumors of the oral cavity. The most common primary sites reported are the lung, kidney and stomach [2]. Other tumors that can be confused with lymphomas are melanomas, poorly differentiated squamous cell carcinomas, poorly differentiated adenocarcinomas, and rare tumors such as neuroblastomas, rhabdomyosarcomas and Ewing's tumor [2]. Accurate diagnosis requires excisional biopsy of the extranodal mass.

The otolaryngologist may be involved in the early stages of diagnosis and treatment of patients with primary non-Hodgkin's lymphoma of the tongue. The most common symptoms are local swelling, pain and discomfort in the throat or ulceration. The tumor may manifest as a submucosal mass, a polypoid bulky mass with a smooth mucosal surface, or as an ulcerated lesion. Involvement of the intrinsic tongue musculature causes restriction

of movement, dysarthria and dysphagia [1]. Occasionally, the tumor may cause upper airway obstruction.

From the small number of well-documented case reports of primary extranodal non-Hodgkin's lymphoma of the tongue, only a few describe cases in which the presenting symptom was a submucosal mass with no exophytic lesion or ulceration [2-5]. Of these, only two cases presenting without cervical lymph node involvement have been described [3,5]

We have presented a rare case of extranodal primary non-Hodgkin's lymphoma of the tongue, probably originating in the lingual tonsil. This case is unusual in that there was only submucosal involvement detected by palpation and no associated cervical lymph node involvement. We stress the importance of digital palpation of the tongue base in patients complaining of dysphagia or a foreign body sensation in the throat. We include unique nuclear medicine images and conclude that Ga-67 scan is a useful imaging modality in evaluating response

to treatment and recurrence of disease in lymphoma patients.

References

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