

## MAXILLARY NON-HODGKIN LYMPHOMA- A CASE STUDY

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### Abstract

*Extranodal non-Hodgkin's lymphoma of the maxilla could present as one of the early manifestation of detrimental diseases. Clinically these types of lymphoma can mimic an inflammatory endo- periodontal lesion with symptoms of pain and local discomfort. The greater the delay in diagnosis subsequently worsens the prognosis. A case of maxillary non-Hodgkin's lymphoma with an unusual presentation is discussed.*

**Keywords:** Non-Hodgkin's lymphoma, Maxilla, Oral lesions, Extranodal

### Introduction

Dental surgeons commonly encounter swellings, which could be developmental, inflammatory or neoplastic in origin. Although neoplastic tumors constitute only a minority of such conditions, a dentist must be aware of the various tumors that could mimic an ordinary swelling. A systematic approach including detailed clinical history, proper clinical examination, and use of laboratory investigation would enable the dental surgeon to point out the differential diagnosis of such lesions. Further appropriate histopathological studies would help in arriving at a proper clinical diagnosis. Malignant lymphomas constitute a group of neoplastic, proliferative process of the lymphocytes and or histiocytes in any of their developmental stages. A complete medical history and histopathological examination is required for diagnosis and staging. This case report describes such a case of primary non-Hodgkin's lymphoma involving facial structures.

### Case Report

Mrs. Rafeza khatun 35 years female reported to the department of Oral and Maxillofacial surgery on 7<sup>th</sup>

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February 2007 with the complaints of swelling over confined to her left upper gingiva and gradually involve the left side of upper face especially on left molar area. The local dental surgeon did periodontal treatment diagnosing calculus induced gingivitis. She gave no significant past medical history. She gave no history of cough, chest pain or hemoptysis. On examination there is diffuse swelling over the buccal gingiva extending up to the zygomatic buttress (Fig. 1). On extra oral examination, palpation revealed a diffuse swelling that was non tender and firm on palpation. The swelling was not fixed to underlying structures and skin over the swelling was normal and freely movable. On intra oral examination there is a diffuse reddish swelling over the left upper jaw mimicking gingivitis (Fig. 3). Anteriorly the swelling extends from the buccal gingiva of the left upper premolar area to second molar area and from free gingiva to zygomatic buttress above downwards. On radiography the left maxillary sinus was hazy and periodontal widening was seen (Fig. 4). CT scan of face shows soft tissue mass overlying the left maxillary antrum with underlying bony erosion suggestive of lymphoma (Fig. 2). On histopathology shows tissue infiltrated with lymphoid cells. The cells are intermediate in size and have convoluted nuclei with scanty cytoplasm. The cells are infiltrating in between the skeletal muscle suggestive malignant non- Hodgkin lymphoma intermediate grade (according to the international working formulation). Patient was referred to the department of oncology for further management. They advised her for combination of six cycle of chemotherapy with Endoxen, Doxorubicin and Vincristin and Radiotherapy of cobalt 60 of 4000 cGy for 26 days. Patient was given follow up at a scheduled basis. Four years follow up shows no sign of tumor recurrence both on clinical and radiological examination (Fig. 5, 6).

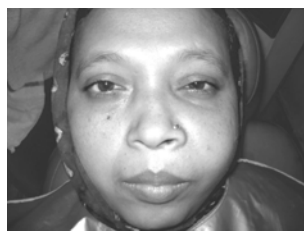


Figure:1 During diagnosis

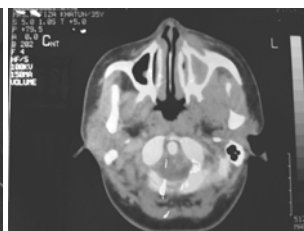


Figure:2 CT scan shows left maxillary sinus involvement

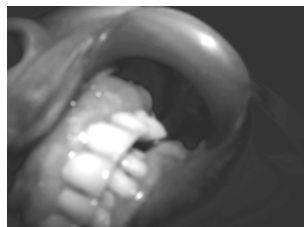


Figure:3 Gingival Swelling at diagnosis



Figure:4 PNS showing hazzy sinus



Figure:5 Post treatment PNS X-ray



Figure:6 Post treatment photograph

### Discussion:

Lymphoma is second only to squamous cell carcinoma in the frequency of malignant neoplasia involving the tissues of head and neck region, which usually affects the lymph nodes. Non-Hodgkin's lymphomas are a group of highly diverse malignancies and have great tendency to affect organs and tissues that do not ordinarily contain lymphoid cells. Almost 20-30% of non-Hodgkin's lymphomas arise from extra-nodal sites.

The head and neck is the second most common region for the extra-nodal lymphoma, the first being gastrointestinal tract. Among various head and neck sites, Waldeyer's ring, which is the area encompassed by the nasopharynx, tonsil, and base of the tongue, is the most often involved by malignant lymphoma. The nose, paranasal sinuses, orbit(s), and salivary glands are the other sites affected in head and neck region.

Involvement of the oral cavity is not common. The maxilla is affected more commonly than the mandible. Eisenbud and Slootweg found 70% of lesions in maxilla, the most common site being the palate and gingival<sup>1</sup>. Freeman<sup>2</sup> estimates that intra-oral presentations represent 2.6% of all extra nodular NHL and Fukuda<sup>3</sup> quotes a figure of 5%. Only 26 cases of the non-Hodgkin's lymphoma of the cheek have been mentioned in English literature. The incidence of the carcinoma involving the buccal mucosa or cheek is very high but non-Hodgkin's lymphoma of buccal mucosa is rare. There has been only one report of NHL occurring in cheek from India. The present case is the first reported case of non hodgkins lymphoma involving upper gingiva and cheek in Bangladesh. NHL usually affects adults between the ages of 40-80 years<sup>4</sup>. The age of this reported case is 35 years.

There are no characteristic clinical features of lymphoma of the oral region. The presenting signs and symptoms are secondary to the lesion. They occur as local bone swelling, tooth mobility, painless inflammation of the mucosa with or without ulcerations, and rarely facial or dental pain. Additional observations include trismus, otalgia, gingival ulceration, sinusitis, or cervical lymphadenopathy<sup>5,6</sup>. In our case, the patient was aware of the slow growing swelling that was not painful and the skin over the area was normal. Specific and evident radiological signs of bone involvement may be absent in 10-20% of cases. The radiographic findings usually are those of periapical inflammatory processes or osteitis. Diffuse trabecular honeycomb and or dental rhizolytic images are occasionally observed. Those may be the images of cortical destruction and invasion of the maxillary sinus. The reported patient presented with the slow growing gingival swelling only and radiographic evidence of bone loss. There is reversal of the incidence of NHL among young HIV positive patients<sup>7</sup>. HIV patients are 60 times at risk than the general population and around 3% of HIV infected people develop lymphomas. The reported patient is non HIV and did not show any recurrence in 4 years of time. Differential diagnosis includes infectious process such as systemic or deep mycosis, dento-alveolar abscess, dental infections; neoplastic process, wherein very rapid growth is a feature of sarcomas and lymphoproliferative disorders, Wegener's granulomas, and midline lethal granulomas most commonly squamous cell carcinomas and benign tumors like fibromas and lipoma; metastatic tumors. The patient was treated with combination of chemotherapy and radio therapy.

**Conclusion**

In conclusion, though the NHL involving the oral region is uncommon, it should always be considered in the differential diagnosis of benign and malignant lesions in this region, because the treatment and prognosis of these conditions is quite different. Even though a dentist does not treat malignant lymphomas, he/she may be the first to diagnose the lesion. Thus dental surgeons indirectly form a part of the team that treats lymphomas. Moreover, a thorough understanding of the disease process will enable the dental surgeon to refer the patient to the proper subspecialty specially to the maxillofacial surgeon.

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