



Primary Non Hodgkin Lymphoma Masquerading as Chronic Abscess with Extra Oral Draining Sinus: A Rare Case Report

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ABSTRACT

Lymphomas are generally classified into two main categories: Hodgkin lymphoma (HL) and non-Hodgkin lymphoma (NHL). 2% of extranodal lymphomas occurs in the oral cavity. The oral manifestations of lymphomas are not clearly defined and can masquerade as periapical lesion, periodontitis, osteomyelitis or any other malignancies. Sometimes a dentist is the first person to diagnose the extranodal lymphoma of the oral cavity (primary site). So atypical presentation of the lesion becomes a diagnostic challenge which delays diagnosis and worsen the prognosis of the disease. Here we present a case of extranodal lymphoma involving lip, right floor of the mouth, tongue of 51 year old patient who presented with the swelling in the mandibular region with an extraoral draining sinus misdiagnosed as periapical lesion. This present case gives insight into a primary malignancy with atypical presentation of the disease which prompt multiple dental interventions prior to the actual diagnosis

KEYWORDS Non Hodgkin lymphoma, extra oral draining sinus, submental region, periapical abscess, CBCT,

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INTRODUCTION

Lymphomas refer to malignant neoplasm of the lymphoid cells or their precursors[1]. These are broadly classified into two main categories: Hodgkin lymphoma and Non-Hodgkin lymphoma [2]. NHL may arise from the B cells or T cells and subtypes of which DLBCL is the commonest histologic subtype[3]. NHL comprises the second most common malignancy occurring in the oral cavity mainly in the lymphoid tissue of Waldeyer's ring (nasopharynx, palatine tonsils, base of tongue and oropharynx[4]. The oral lesions of NHL are not specific, and can masquerade as other pathological entities such as pericoronitis, gingival growth, advanced periodontitis, periapical abscess which make it difficult to diagnose[5].

CASE REPORT

A 51 years old male patient reported to the Department of Oral Medicine and Radiology of reputed dental college with a chief complaint of swelling in the submental region since 6 months. The swelling gradually increased with time. He presented with the past dental history of extraoral draining sinus for which he underwent RCT for teeth 33 and 41 two months back. Following RCT he had no relief of pain and no regression in the size of the swelling hence approached our institution after 2 months of his primary treatment. He had marked weight loss of about 10 kg in past 2 months. He gave history for bidi smoking (10 Bidi/day) since 35 years and substance abuse (cannabis) for past 20 years. Medical history was negative. Extra oral examination revealed well-defined solitary swelling of size 4X5 cm extending superoinferiorly 1 cm below the vermilion border of the lower lip till submental region and right corner of the mouth to left corner of the mouth mediolaterally. Extra oral draining sinus with necrotic slough and bleeding was evident. It was hard, tender and overlying skin was non pinchable. (Figure 1). Right submandibular lymph node was palpable and was single, firm and mobile measuring approx.1cm. Other lymph nodes were non-palpable. On intra oral examination diffuse swelling was evident in the floor of the mouth crossing the midline with complete obliteration of the lower labial vestibule extending from 33 region to 44 region (Figure 2). On palpation swelling was smooth, tender, non-mobile, fixed and firm in consistency. The swelling was non-compressible, non-reducible. Teeth 33 and 44 gave no response to electric pulp testing. The tooth 33 showed grade III mobility. A provisional diagnosis of chronic suppurative osteomyelitis was given.

OPG was suggestive of periapical abscess wrt 33. CBCT revealed trabecular rarefaction in wrt 41-42 region and labial cortical erosion (Figure 3). Chronic suppurative osteomyelitis was given as a clinico-radiological diagnosis.

Patient was tested negative for HIV, Hepatitis B and TB and his blood investigations were within normal limit. The offending tooth 33 was extracted and the lesion was excised from the lower labial vestibule which was sent for histopathological examination and IHC. The biopsy specimen revealed dense infiltrate of large pleomorphic cells with nuclear atypia, plasma cells eosinophils between the tumour cells, abundant mitotic figures and cells showed immunopositivity for CD20 and CD45 and diagnosis of diffuse large B cell lymphoma (DLBCL) germinal centre B type was established (Figure 4). The patient was then subjected to full body ¹⁸F-FDG PET-CT scan which revealed enhancing soft tissue thickening involving the right lateral border of the lip and distal one third of lateral border of tongue reaching upto the floor of the mouth and crossing the midline, gingivolingual region and extending into gingivobuccal region, invading the buccal fat pad and reaching upto the skin. Erosion of right half of mandible was also appreciated. Bilateral IB, right level II, right level III cervical lymph nodes were noted largest measuring 1.2X0.9cm in right level II. No other lesion in the body was surveyed. (Figure 5)

Patient was referred to Cancer Institute where the diagnosis of DLBCL was confirmed. The patient was advised chemotherapy that included **(R)** rituximab, **(C)** cyclophosphamide, **(H)** doxorubicin hydrochloride, **(O)** vincristine **(P)** prednisolone (RCHOP X 6 cycles) by the medical oncologist. The treatment was completed and well tolerated by the patient. He is on regular follow up on monthly basis and is also disease free after taking chemotherapy since 2 years.



Figure 1: Extra-oral swelling in the mental and submental region with extra oral draining sinus, diffuse intraoral swelling in the floor of the mouth crossing the midline complete obliteration of the lower labial vestibule



Figure 2: Diffuse intraoral swelling in the floor of the mouth crossing the midline with Complete obliteration of the lower labial vestibule.

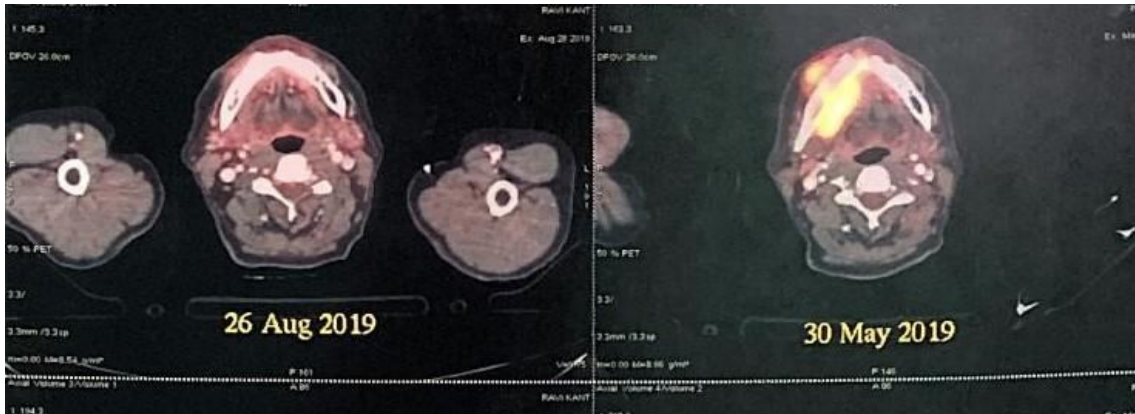


Figure 5: Shows enhancing soft tissue thickening in lateral border of lip, lateral border of tongue, floor of the mouth, gingivolivual

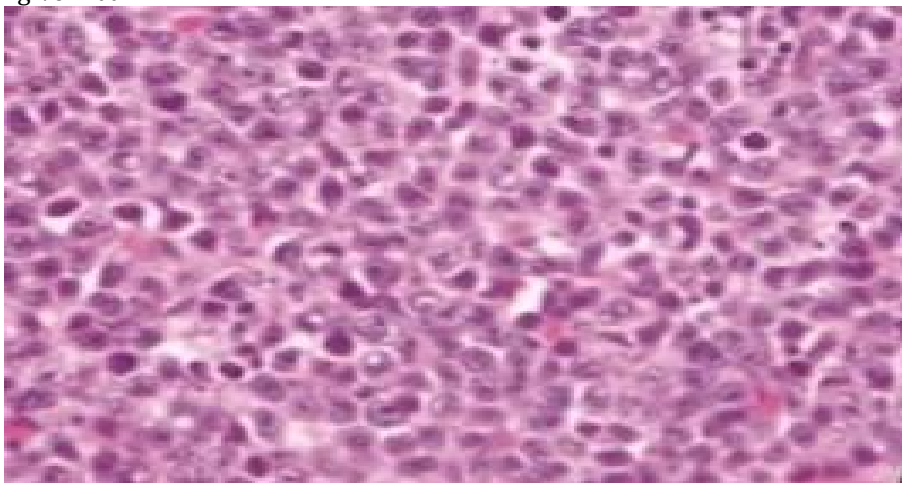


Figure 4: Histopathological picture revealed dense infiltrate of large pleomorphic cells, plasma cells eosinophils between the tumor cells.

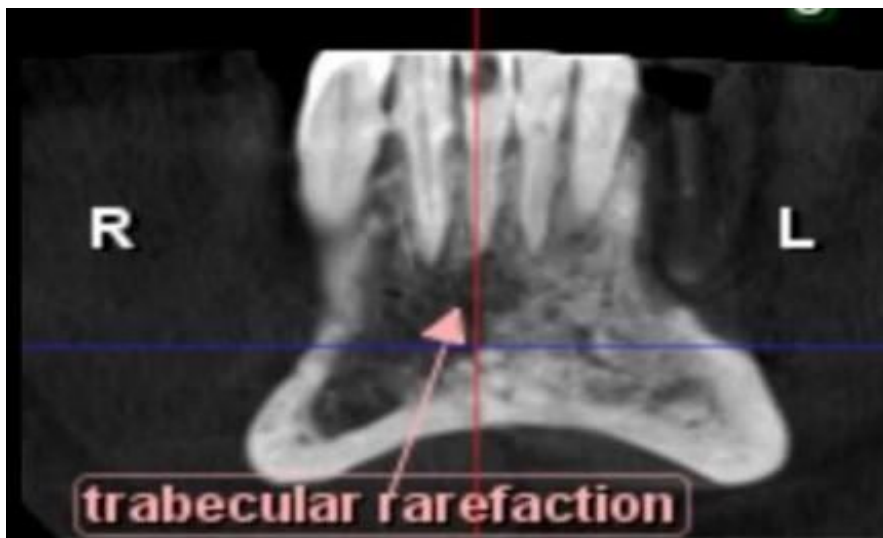


Figure 3: (CBCT) revealed irregular trabecular rarefaction with indistinct margins in mandibular midline wrt 41-42 region. Cortical erosion was seen in the labial cortex

DISCUSSION

Primary NHL arising in the oral cavity is unusual and constitute 0.6% of all the extra nodal NHL [6]. NHL can occur at any age group, but is more commonly seen in middle aged patients with a slightly greater predilection for female sex, involving maxilla more than mandible [7]. In this case patient was 51 years old

male presented with a mandibular lesion. The most common sites for extra nodal NHL include Waldeyer's Ring, oral cavity, salivary glands, thyroid, larynx, nasal cavity, paranasal sinuses and skin [8]. In this case the presentation of the site of the lesion was rare involving the mental, submental region and floor of the mouth.

Clinical sign and symptoms include facial asymmetry, tooth displacement, swelling, pain, hardened lesion, ulcerated lesion, palpable lymph nodes, paraesthesia, lock jaw etc [9]. The current case presented with hard swelling with an extra oral draining sinus and pain on palpation. Radiographically NHL's involving the jaw shows widened pdl space, loss of lamina dura, loss of crypt cortex of unerupted teeth, displacement of teeth in occlusal direction, destruction of lingual or cortical plate and loss/enlarged mandibular canal [10]. In this case mild labial cortical plate erosion was evident in the secondary to the soft tissue lesion. Oral NHLs predominantly arise from B-cells and are of DLBCL subtype. In oral cavity, DLBCL has been mostly reported in the buccal mucosa, gingiva, hard palate and the maxillary gingivo-buccal sulcus. Histologically, NHLs show lymphocytic proliferation which is easily mistaken for a periapical granuloma or cyst [7]. DLBCL subtype has varied clinical features, histology, immunohistochemistry as well as prognosis. It can be characterized as: germinal center B-cell, activated B-cell or does not fit into any classification². Our patient presented with DLBCL germinal centre B type and the tumour cells depicted immunopositivity for CD20 and CD45.

To rule out the systemic spread, fullbody F-FDG PET-CT Scan was done which showed enhancing soft tissue thickening involving lip, tongue, floor of the mouth, gingivolingual region with mild erosion in mandibular cortex. No other lesion or extranodal sites in the body was found to be involved suggesting it to be an isolated primary or localized oral lesion. The conventional treatment of DLBCL is chemotherapy (CHOP). The R-CHOP regimen includes anti-CD20 (rituximab) which improves prognosis [2]. Our patient underwent 6 cycles of R-CHOP regimen and is disease free.

CONCLUSION

Primary extranodal NHL is rarely found in the routine practice of dental practitioner. The dentist must be aware of the atypical symptoms of jaw swelling where he fails to rule out any odontogenic cause and should think of the malignancies such as lymphomas.

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