Maxillary Antral Nonhodgkins Lymphoma- Case Report

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Abstract

Non-Hodgkin’s Lymphoma (NHL) occurring in the paranasal sinus is very uncommon. Diagnosis of NHL arising from paranasal sinus and more specifically the maxillary sinus often will be challenging because of the symptoms mimicking clinical features of sinusitis. Here we report a case of maxillary antral NHL in a female patient of age 42 years with chief complaint of unilateral nasal obstruction. IHC confirmed B cell type.

Keywords: Non Hodgkins Lymphoma, paranasal sinus, B cell lymphoma

Introduction

Lymphoma is the malignant neoplasm of the lymphopoietic portion of the reticulo-endothelial system, which is broadly classified as Hodgkin’s lymphoma (HL) and non- Hodgkin’s lymphoma (NHL). Hodgkin’s is a neoplasm primarily of lymph nodes, where as non- Hodgkin’s often occur in extra-nodal areas. The Commonest site of extranodal NHL being liver, soft tissue, dura, bone, stomach, intestine, bone marrow followed by head and neck, the second commonest site [1]. Non-hodgkin’s lymphoma occurring in the paranasal sinus is very uncommon in the head and neck region with the commonest site as Waldeyer’s ring- tonsils, nasopharynx, base of the tongue and palatine tonsils. NHL occurring in paranasal sinus proportions is 0.17 – 2 % of all NHL. Among the malignant neoplasm of the paranasal sinus, 5.8 % contributes to NHL in which maxillary sinus is the commonly affected site. In India, the incidence of Non Hodgkin’s Lymphoma (NHL) is 5.1 / 100000 [2].

Case Report

A female patient of age 42 years visited our dental OP with the chief complaint of restricted mouth opening for past 3 months before when was apparently normal. Mouth opening had gradually reduced to attain the present state of 6mm (fig. 1). She had consulted a general dental practitioner and undergone extraction of 28 and 38 hoping for better mouth opening. After 2 weeks she developed left nasal obstruction for which she consulted the ENT department and was treated for sinusitis. But her complaints of mouth opening and unilateral nasal obstruction did not get resolved. So she was referred to dental OPD.

On examination, mouth opening was reduced to 6 mm. no extra-oral abnormalities of shape, size or color were detected and also no palpable lymphnodes. The intra oral examination with the help of trismus screw revealed grade 1 mobility in relation to 24, 25, 26, 27 and pain in relation to 27 was noted. The patient OPG revealed haziness in the left maxillary sinus. The CT of paranasal sinus view cited a soft tissue mass obliterating the left maxillary sinus destructing the left maxilla that includes alveolar process, nasal wall, lateral wall and left pterygoid bone with extension into the pterygoid fossa, indicating sinus pathology (fig. 2 & 3).
The FNAC report was insignificant and was advised for incisional biopsy. The H&E stained section showed acanthotic squamous epithelium and deeper areas showed mucous glands and connective tissue composed of round cell with round nuclei arranged in sheets. Some of the cells showed condensed nuclei and others showed vesicular nuclei. In focal areas, the nuclei were eccentrically placed (fig 4). The picture was suggestive of round cell tumor that includes nonhodgkins lymphoma.

For confirmation immunohistochemistry was done by polymer technique. Majority of the cells were strongly positive for CD20 (fig 5). So finally the case was diagnosed as follicular nonhodgkins lymphoma – B cell type. The patient was then referred to oncology for surgical clearance followed by radiotherapy and obturator.
Discussion

Though this NHL is a malignant tumour of HIV / AIDS which is 25-60 times more frequent than the general population, this is the second common malignant neoplasm of the oral cavity next to squamous cell carcinoma[3]. Diagnosis of NHL arising from paranasal sinus and more specifically the maxillary sinus often will be challenging because of the symptoms mimicking clinical features of sinusitis as in our case.

Jaffe E.S. has reported the common age of occurrence for nonhodgkins lymphoma is 70 years of age and also stated that clinically it enlarges rapidly and becomes symptomatic mass [4]. The Indian data stated the median age is 55.5 and male preponderance [2]. But in our case the age of occurrence, sex and rate of growth of tumour was different. In a review study made by Van der Waal .R.et al, the conclusion was 77% of oral lymphomas originated from upper jaw and only 66% from soft tissue which is true in our case also[5].

In the literature review did by Su Zy et al in 14 patients with primary paranasal sinus lymphoma, maxillary sinus was the commonest sinus followed by ethmoid and sphenoid sinus and B cell is the common histologic subtype which is agreed in our case [6].

The most common symptoms of sinonasal lymphomas are nasal obstruction, epistaxis, head ache and unilateral, facial, cheek or nasal swelling. Our case came with the complaint of nasal obstruction similar to the antral lymphoma cases in AIDS patient reported by Kandogan et al [7] and Del Forno et al [3]. In our case, HIV/AIDS was ruled out.

The epidemiological study done in incidence and etiology of non-hodgkins lymphoma in USA, various etiological factors have been proposed in the process of lymphomagenesis. They are hereditary factors, immunosuppressant, AIDS, UV radiation, viruses including EBV, HTLV, Helicobacter pylori, HHV8, hepatitis C, simian virus 40, chemical / agricultural exposure, hair dye, tobacco and alcohol, blood transfusions [8]. In our case though the commonest etiology is ruled out, after a detailed past medical, personal and family history the other factors that could be indexed as carcinogen are chemical / agricultural since her occupation is farm oriented or her habit of using hair dye or could be multifactorial.

The study on the geographic distribution of NHL subtypes in India done by Naresh KN et al, the conclusion was follicular lymphoma and B cell type are less common in India [9]. But our case is follicular B cell type lymphoma, which has a good prognosis according to Colffier B. et al [10].

To conclude primary antral non-hodgkins B cell lymphoma of maxillary sinus, wide knowledge and information about lymphoma should reach people and practitioners. An interdisciplinary approach is essential for the early diagnosis and proper treatment of the patient to increase the survival rate.

References