

An Unusual Site for Non - Hodgkin Lymphoma, Vallecule: A Case Report

Dr. Nilam U. Sathe¹, Dr. Anjali Taku², Dr. Davish Gupta³, Dr. Monal Chourdiya⁴

¹Associate Professor, Department of ENT, Seth G. S. Medical College & KEM Hospital, Mumbai
Corresponding Author Email: [drneelam_s\[at\]yahoo.co.in](mailto:drneelam_s[at]yahoo.co.in)
Mobile: +919821309298

²Senior Resident, Department of ENT, Seth G. S. Medical College & KEM Hospital, Mumbai
Email: [anjalitaku150\[at\]gmail.com](mailto:anjalitaku150[at]gmail.com)
Mobile: +91 7642929033

³Senior Resident, Department of ENT, Seth G. S. Medical College & KEM Hospital, Mumbai

⁴Senior Resident, Department of ENT, Seth G. S. Medical College & KEM Hospital, Mumbai

Abstract: Introduction: The non - Hodgkin lymphomas (NHL) are a heterogeneous group of lymphoproliferative malignancies with different patterns and responses to treatment. Most commonly seen in age ranging from 65 - 74 years with median age of diagnosis is at 68 years. Vallecule lymphoma is an extremely rare tumour of oropharynx. Base on the prognostic groups: the indolent and aggressive lymphomas, the treatment differs. The mainstay of the treatment includes chemotherapy, immunotherapy and radiation therapy. The 5 - year relative survival rate of patients is 74.3%. Case Report: WE reported a rare case of Non - Hodgkin lymphoma (NHL) of vallecule region in a 43 year old male who presented with a one month history of foreign body sensation in throat. Laryngoscopy finding suggestive of globular mass arising from lateral surface of right vallecule area without any oro - pharyngeal airway compromise. Finding confirmed with computed tomography. Patient underwent transoral laser assisted excision of the mass and later was diagnosed of Non - Hodgkin lymphoma (NHL) in histopathological examination. Conclusion: The primary NHL of the vallecule is very rare but one must consider it as one of the differential diagnosis of any vallecule mass. One needs proper preoperative evaluation and multidisciplinary team approach with anaesthetist as any manipulation may lead to airway compromised especially when dealing with large tumour.

Keywords: Non - Hodgkin lymphoma; vallecule; laser

1. Introduction

Vallecule is an infolding of mucosa to form a pouch and is situated between the pharynx and larynx. It mainly contains glandular or lymphoid tissues. Vallecule tumour is an uncommon disease.¹

The commonest vallecule mass is benign vallecule retention cyst and rarest is lymphoma.^{2,3}

Lymphoma of head and neck is not uncommon. Lymphoma arises from extra - nodal organ or tissue is called Extra - nodal lymphomas (ENLs). Approximately, one third of non - Hodgkin lymphomas (NHL) present in an extra - nodal site.⁵

The non - Hodgkin lymphomas (NHL) are a heterogeneous group of lymphoproliferative malignancies with different patterns and responses to treatment. It is the most prevalent hematopoietic neoplasm and ranking eighth in among all cancers.

Most commonly seen in age sixth - seventh decade of life with median age at diagnosis is 68 years.⁶ The 5 - year relative survival rate of patients is 74.3%.⁶

The aetiology of Non- Hodgkin lymphoma (NHL) may be due to chromosomal translocations, infections, environmental factors, immunodeficiency states, and chronic inflammation.

Treatment option includes combination chemotherapy, immunotherapy and radiation therapy.

2. Case Report

A 43 year old male patient presented in our outpatient department with history of foreign body sensation in throat since one month. He had no dysphagia, odynophagia, voice change, respiratory distress, noisy breathing, loss of appetite or swelling in the neck.

Physical examination revealed that patient is of good built and not in respiratory distress. Laryngoscopy finding were suggestive of globular mass arising from lateral surface of right vallecule area (Figure 1). Bilateral vocal cords were mobile with good chink.

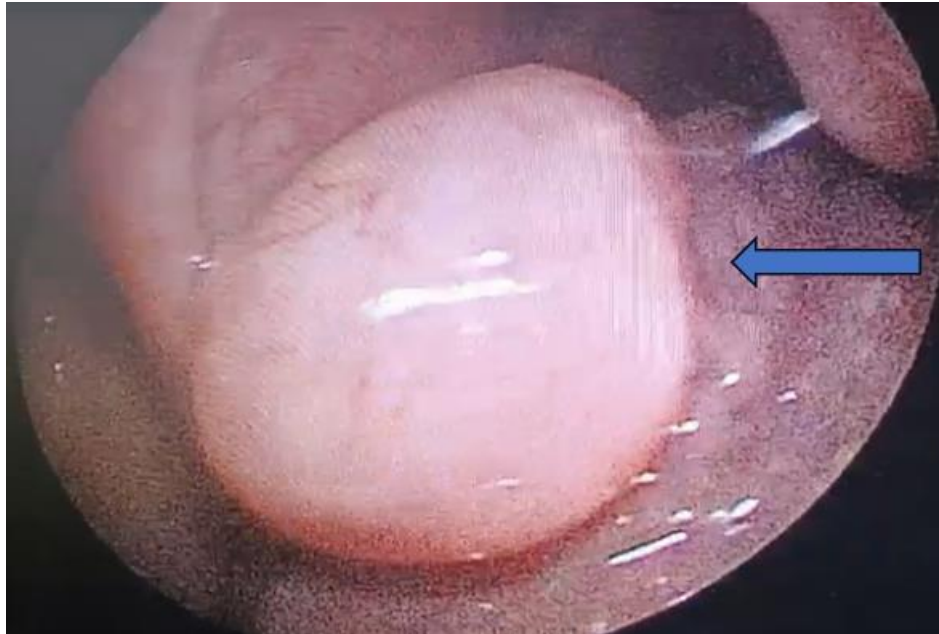


Figure 1: Right vallecular mass (blue arrow)

There were no cervical, axillary or inguinal lymphadenopathies. Ear and nose examination were normal. Computed tomography of oropharynx and neck suggestive of a well-defined peripherally enhancing lobulated lesion

measuring 1.9x1.8x1.6 cm is seen in the right vallecular region with mild oropharyngeal luminal narrowing (Figure 2). Few subcentimetric bilateral reactive cervical lymphadenopathy at level Ib, II, III and V was present.

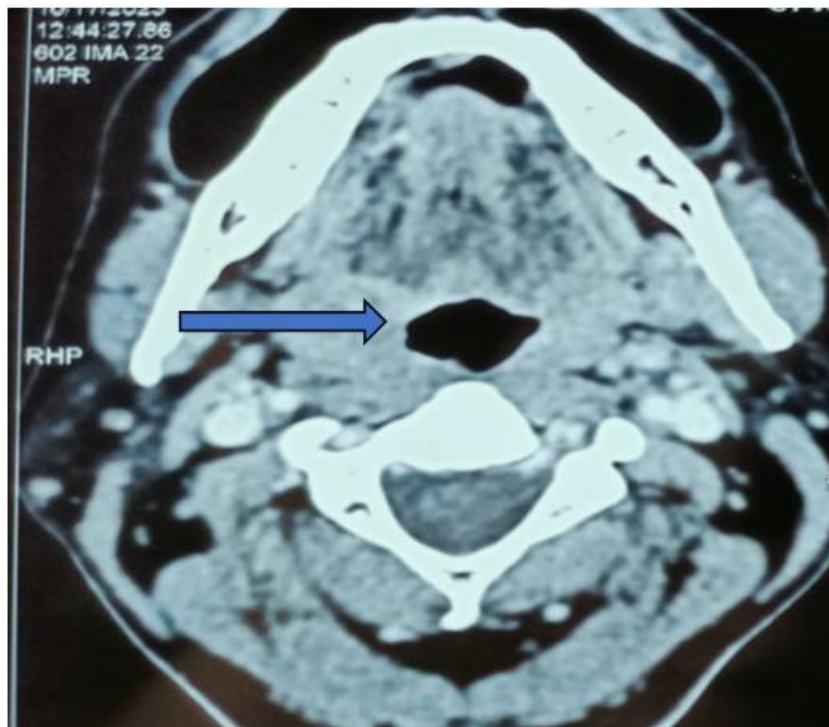


Figure 2: Computed tomography in axial view showing a well - defined enhancing lobulated mass in right vallecular region (blue arrow)

Patient's haematology workup was all within normal range. Serology study was negative. Patient underwent transoral CO₂ (carbon dioxide) laser assisted excision of the lesion under general anaesthesia and tissue sample was sent for histopathological examination (Figure 3). The histopathological examination revealed Non - Hodgkin lymphoma. Patient was then referred to medical oncology department for further management.

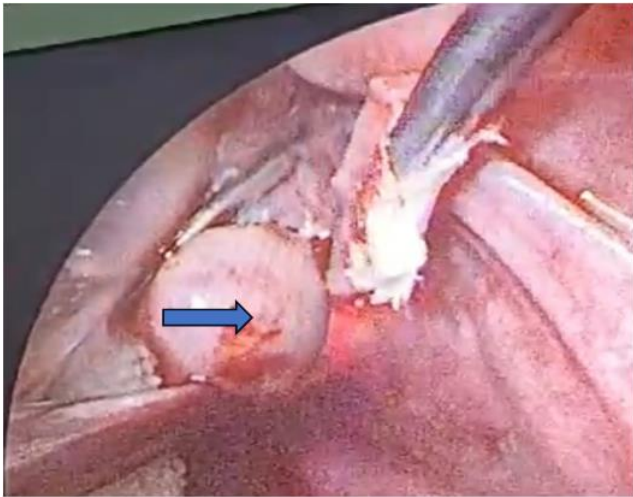


Figure 3: Showing intraoperative right vallecular mass being excised using CO2 laser via transoral approach (blue arrow)

3. Discussion

Lymphoma of head and neck is not uncommon. It is the second most common primary malignancy because head and neck is predominantly consists of lymphoid tissue and glands.

Vallecula is a potential space and mostly contains glandular or lymphoid tissues. However, vallecular lymphoma is a rare disease entity.^{2,3}

The B - cell lymphoma accounts about 90% of cases while the rest are T - cell and NK - cell type.

Lymphoma arises from extra - nodal organ or tissue is called Extra - nodal lymphomas (ENLs). Approximately, one third of non - Hodgkin lymphomas (NHL) present in an extra - nodal site.⁵

The non - Hodgkin lymphomas (NHL) are a heterogeneous group of lymphoproliferative malignancies with different patterns and responses to treatment.⁴

It is the most prevalent hematopoietic neoplasm and ranking eighth in among all cancers. Non - Hodgkin lymphoma (NHL) is more than 5 times as common as Hodgkin lymphoma.⁶ Most commonly seen in sixth - seventh decade of life with median age at diagnosis is 68 years.⁶ The 5 - year relative survival rate of patients is 74.3%.⁶

The aetiology of Non- Hodgkin lymphoma (NHL) may be due to chromosomal translocations, infections, environmental factors, immunodeficiency states, and chronic inflammation.^{7,8}

NHL can be divided into two prognostic groups: the indolent lymphomas and the aggressive lymphomas

Indolent lymphoma tends to grow and spread slowly with few signs and symptoms whereas aggressive lymphoma grows and spreads quickly and has more severe signs and symptoms.

Immunohistochemistry is a useful and necessary diagnostic aid and helps in sub - typing different types of NHL.

In this case immunohistochemistry was not done due to nonavailability of machine. Patient was referred to medical oncologist for further management.

The common treatments for NHL included chemotherapy, radiotherapy, immunotherapy, stem cell transplantation and surgery, depending on the disease type, stage and health condition of patient.^{9,10}

The aggressive type of NHL can be cured with intensive combination chemotherapy regimens. While indolent NHL is responsive to immunotherapy, radiation therapy, and chemotherapy.

The prognosis of non - Hodgkin lymphoma mainly depends on histopathology, the extent of involvement and patient factors.

4. Conclusion

- The primary NHL of the vallecula is very rare but one must consider it as one of the differential diagnosis of any vallecular mass.
- One need proper preoperative evaluation and multidisciplinary team approach with anaesthetist as any manipulation may lead to airway compromised especially when dealing with large tumour.
- Immunohistochemistry is a useful and necessary diagnostic aid and helps in sub - typing different types of NHL.

Conflict of interest: There is no conflict of interest.

References

- [1] Lahiri AK, Somashekar KK, Wittkop B, Ayshford C. Large Vallecular Masses; Differential Diagnosis and Imaging Features. *J Clin Imaging Sci.*2018; 8: 26
- [2] Hoang TM, Kim BB. A Case Report of a Vallecular Cyst and Literature Review. *J Oral Maxillofac Surg.*2015; 73 (1766): e1 - 1766. e17664.
- [3] Tresley J, Saraf - Lavi E, Kryvenko ON, Sargi Z. Epiglottic masses identified on CT imaging: A case report and review of the broad differential diagnosis [published correction appears in *NeuroradiolJ.*2015; 28: 347–53.
- [4] Shankland KR, Armitage JO, Hancock BW: Non - Hodgkin lymphoma. *Lancet* 380 (9844): 848 - 57, 2012.
- [5] R. Newton, J. Ferlay, V. Beral, *et al.* The epidemiology of non - hodgkin's lymphoma: Comparison of nodal and extra - nodal sites
- [6] *Int J Cancer*, 72 (1997), pp.923 - 930
- [7] Surveillance, Epidemiology, and End Results Program. Cancer Stat Facts: Non - Hodgkin Lymphoma. National Cancer Institute. Available at <https://seer.cancer.gov/statfacts/html/nhl.html>. Accessed: May 31, 2023.
- [8] Offit K, Wong G, Filippa DA, Tao Y, Chaganti RS. Cytogenetic analysis of 434 consecutively ascertained

specimens of non - Hodgkin's lymphoma: Clinical correlations. Blood 1991; 77: 1508–15

- [9] Niederman JC, Evans AS, Subrahmanyam L, McCollum RW. Prevalence, incidence and persistence of EB virus antibody in young adults. N Engl J Med 1970; 282: 361–5
- [10] Shankland KR, Armitage JO, Hancock BW. Non - Hodgkin lymphoma. Lancet.2012; 380: 848–57.
- [11] Lowry L, Smith P, Qian W, Falk S, Benstead K, Illidge T, Linch D, Robinson M, Jack A, Hoskin P. Reduced dose radiotherapy for local control in non - Hodgkin lymphoma: a randomised phase III trial. RadiotherOncol.2011; 100: 86–92.

Captions for Figures

Figure1 - Showing a globular mass arising from lateral surface of right vallecular area

Figure 2 - Computed tomography of oropharynx in axial view showing a well – defined enhancing lobulated mass in right vallecular region

Figure 3 - Showing intraoperative right vallecular mass being excised using CO2 laser via transoral approach