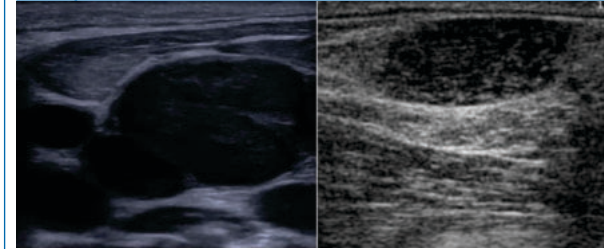




ORIGINAL RESEARCH PAPER	ENT
ADENITIS: A MYRIAD OF DIAGNOSIS – A CASE REPORT OF SECONDARY PRIMARY MALIGNANCY	KEY WORDS:

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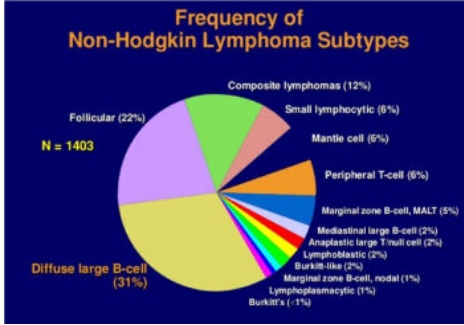
ABSTRACT	Lymphoma is the second most common primary malignancy in the head and neck region, accounting for approximately 25% of all extra-nodal lymphomas in this area. While primary malignancies with lymphoma are not uncommon, we present a unique case of a 65-year-old male with a history of total thyroidectomy and radiation therapy for papillary carcinoma 20 years ago. The patient now presents with swelling on the left side of the neck and dysphagia. Laboratory investigations revealed a high-grade non-Hodgkin's lymphoma (NHL). This report highlights the occurrence of secondary primary malignancy 20 years after the initial diagnosis, emphasizing the importance of early detection and careful evaluation in such cases.
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Insert Image 1: Neck Ultrasound showing high-grade non-Hodgkin's lymphoma

INTRODUCTION

Non-Hodgkin lymphoma (NHL) comprises a diverse group of hematologic malignancies arising from lymphoid tissues, characterized by the uncontrolled proliferation of lymphocytes. NHLs can either be of B-cell or T-cell origin, and head and neck regions are common sites for extranodal involvement. Multiple primary malignancies (MPM) in the head and neck region are frequently observed, especially after long-term survival from the first malignancy. We present a case of secondary primary malignancy, non-Hodgkin lymphoma, 20 years post-treatment for papillary carcinoma of the thyroid. This case underscores the need for vigilance when dealing with patients with a history of head and neck malignancies, as secondary malignancies can arise decades after initial treatment.



Insert Image 2: Schematic diagram of Non-Hodgkin lymphoma subtypes

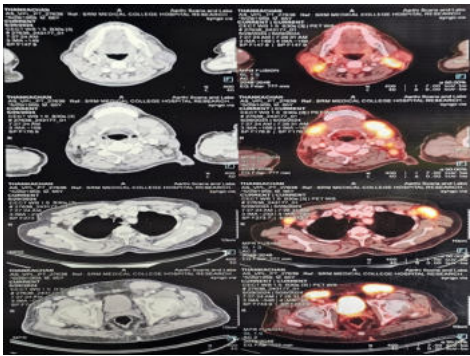
Case Report

A 65-year-old male presented with complaints of left-sided neck swelling for 10 days, accompanied by dysphagia. His medical history included a total thyroidectomy and radiation therapy for papillary thyroid carcinoma in 2000. On examination, the patient had no significant findings apart from the neck swelling.

- Diagnostic Investigations:**
- Diagnostic Nasal Endoscopy And Videolaryngoscopy:** Normal anatomy.
 - Ultrasound Of The Neck:** Revealed high-grade non-Hodgkin's lymphoma on the left side.
 - Positron Emission Tomography-Computed Tomography (PET-CT):** Showed high-grade metabolically active enlarged lymph nodes in bilateral cervical, inguinal, axillary, and retroperitoneal regions.
 - Fine Needle Aspiration Cytology (FNAC):** Confirmed non-Hodgkin's lymphoma.

The patient underwent an excision biopsy of the left cervical lymph node, which was sent for histopathological examination (HPE) and immunohistochemistry (IHC). HPE confirmed a lymphoproliferative disorder, and IHC results showed a high-grade T-cell non-Hodgkin's lymphoma, positive for CD3, CD8, CD5, CD20, and Cd30.

Treatment: The patient was started on chemotherapy with Adriamycin, Vincristine, and Etoposide.



Insert Image 3: PET-CT scan showing high-grade metabolically active enlarged lymph nodes

DISCUSSION

Non-Hodgkin lymphoma can be classified into various subtypes, with the majority being B-cell lymphomas. However, the incidence of T-cell lymphomas is higher in regions such as Southeast Asia and the Caribbean. The World Health Organization (WHO) classification of lymphomas includes entities defined by morphology, immunophenotype, cytogenetics, and clinical behavior. The most common aggressive form of NHL is Diffuse Large B-cell Lymphoma, while T-cell lymphomas such as those seen in this case tend to be rarer in head and neck regions.

In patients with a history of head and neck cancer, such as thyroid carcinoma treated with radiation, the occurrence of second malignancies is of considerable concern. Radiotherapy is known to increase the risk of secondary cancers, and it is well-documented that patients who survive their initial cancer are at an elevated risk for secondary primary malignancies (SPMs). The present case illustrates a secondary malignancy occurring two decades after the primary malignancy, which is consistent with known patterns of late-onset secondary cancers post-radiation therapy.

Lymphomas, especially in previously irradiated fields, may present with symptoms similar to recurrence or metastasis of the original tumor, necessitating careful and comprehensive diagnostic work-up. In this case, diagnostic modalities such as FNAC, PET-CT, and excisional biopsy were essential for definitive diagnosis.

Ann Arbor Staging System For NHL:

- **Stage I:** Involvement of a single lymph node region or a single extralymphatic site (IE).
- **Stage II:** Involvement of two or more lymph node regions on the same side of the diaphragm, with or without contiguous extralymphatic involvement (IIE).
- **Stage III:** Involvement of lymph node regions on both sides of the diaphragm, possibly with spleen involvement (IIIS) or extralymphatic involvement (IIIE).
- **Stage IV:** Diffuse extralymphatic involvement, with or without systemic symptoms such as fever, night sweats, and significant weight loss.

This patient's disease staging based on PET-CT suggested advanced disease with widespread lymphadenopathy, indicating a more aggressive form of NHL.

CONCLUSION

The diagnosis of secondary primary malignancy, particularly non-Hodgkin lymphoma, in patients with a history of head and neck radiation and malignancies, should be suspected when new symptoms arise in previously treated regions. In this case, while squamous cell carcinoma or recurrence of papillary carcinoma was initially suspected, the diagnosis of high-grade T-cell non-Hodgkin lymphoma was confirmed after comprehensive diagnostic work-up. This case highlights the importance of continued vigilance in monitoring for secondary malignancies in patients with a history of head and neck malignancies, especially those treated with radiation therapy.

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