

Primary Thyroid Lymphoma: a case report

Dr Meher Lakshmi Konatam^{1,*}, Dr Triveni. B¹, Dr Md Shoiab Zeesham¹,

¹Assistant Professor, Medical Oncology, MNJ Institute of Oncology and Regional Cancer Centre, Red Hills, Lakadikapul, Hyderabad-500004, Telangana, India

*Corresponding author

Dr Meher Lakshmi Konatam

Email: mehercancercare@gmail.com

Abstract: Primary thyroid lymphoma is rare clinical presentation. Most of the cases are subjected to thyroidectomy without proper histological diagnosis. We present a rare case of middle aged lady presenting with rapidly enlarged thyroid mass and stridor. On evaluation she was diagnosed as a case of primary thyroid lymphoma. She responded well to chemotherapy with rapid resolution of her symptoms. We highlight the importance of FNAC and biopsy prior to subjecting the patients for major surgery.

Keywords: primary thyroid lymphoma, thyroid cancer, PTL, Non Hodgkins lymphoma thyroid.

INTRODUCTION

Primary thyroid lymphomas (PTL) are very rare and account for only 2.5% to 5% of all thyroid malignancies and 1-2% of all extra-nodal malignancies [1]. PTL is more prevalent in females in the sixth to seventh decade of life [2]. Due to its rarity, clinical suspicion is rare and patients are subjected to surgery. In majority of the cases diagnosis is made postoperatively after total thyroidectomy.

We present a case of middle aged lady presenting with rapidly enlarging mass in thyroid. Timely and accurate diagnosis brought immediate relief to her symptoms. This case highlights importance of FNAC and trucut biopsy in the diagnosis of thyroid lymphoma.

CASE REPORT

A 40year old lady presented with rapidly enlarging mass in the neck of one month duration. She also had dysphagia and shortness of breath. Past, personal and family history is unremarkable. No h/o fever, night sweats and weight loss. On examination: Performance status: 2, respiratory rate 40 per minute, with stridor. Around 12x12cm soft to firm, non-tender, diffuse swelling is present on the anterior aspect of neck, moving with deglutition. There are no swellings elsewhere in the body and no palpable lymph nodes.

FNAC was done immediately which was suspicious of lymphoma. Trucut biopsy, CECT neck, chest and abdomen were done and patient was immediately started on steroids. Bone marrow aspiration and biopsy were done after stabilization of the patient.

CT chest and abdomen are normal. CT neck showed large well defined moderately enhancing soft tissue mass lesion (measuring 9x6x10cm) in left lobe/isthmus of thyroid. Small cystic/necrotic component is seen within the mass. It is compressing and displacing trachea to right (fig-1).



Fig-1: Large moderately enhancing mass lesion in left thyroid lobe causing tracheal displacement.

HPE showed sheets of atypical lymphocytes and few large cells and mononuclear proliferation of cells at places (figures: 2 and 3). IHC was done with following results. LCA: positive, CD20: positive, Ki 67 index: high 60%, CD5: positive, cyclin D1 and CD 10 negative. Conclusion is Non Hodgkins Lymphoma B cell type high grade.

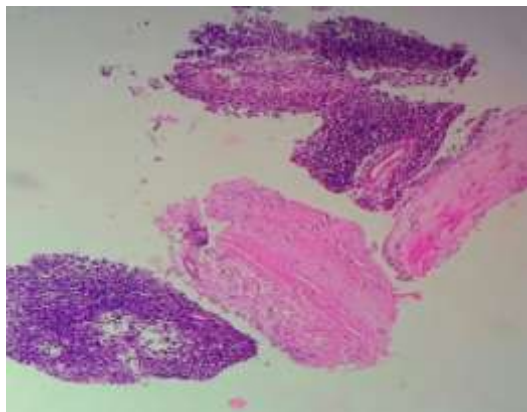


Fig-2: low power: linear core of tissue showing sheets of lymphoid cells.

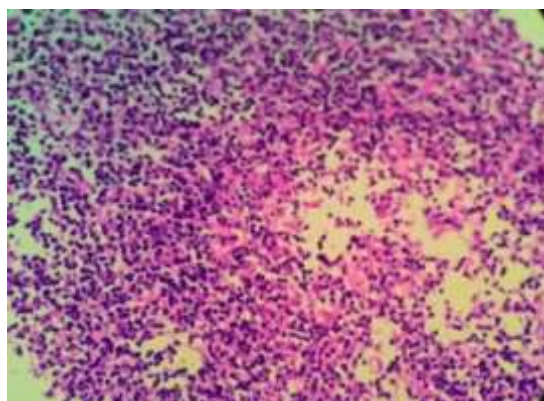


Fig-3: High power: sheets of atypical lymphocytes and few large cells. Monotonous population at places.

Bone marrow is normal. Final diagnosis is Stage 1A, E Non Hodgkins Lymphoma of thyroid. Thyroid function tests are normal.

She had immediate response to steroids which were started immediately pending trucut biopsy report. Soon after the diagnosis is reached she was started on RCHOP chemotherapy. She has good response to therapy (figure: 4). She is now due for second cycle chemotherapy and is asymptomatic.



Fig-4: thyroid swelling after one cycle chemotherapy

DISCUSSION

Primary thyroid lymphoma (PTL) is a heterogeneous disease, but almost all cases of PTL are NHL with B-cell origin³. DLBCL and extranodal marginal zone B cell lymphoma of MALT lymphoma and both diseases coexisting are the common histologic subtypes [3,4]. Other less common histologic subtypes include follicular lymphoma, Hodgkin lymphoma, small lymphocytic lymphoma, T-cell lymphoma. There is a 4 to 1 female predominance and the median age at diagnosis is around 60 years [3,4].

Chronic lymphocytic thyroiditis or Hashimoto's disease is found in more than 90% of the reported cases [5]. Some authors hypothesize that chronic stimulation of lymphocytes by thyroiditis leads to malignant transformation. Most patients with PTL are euthyroid at initial presentation and 10% present with hypothyroidism [6].

FNAC is very important in the diagnostic workup of thyroid disease [7]. Sometimes FNAC may be inconclusive due to the histopathological similarities between primary thyroid lymphoma and Hashimoto's thyroiditis [8]. But FNAC must always be attempted before open biopsy and surgery. In our case it is FNAC that has raised the suspicion of lymphoma. The gold standard for histological diagnosis is core needle biopsy or surgical biopsy. Currently, a larger percentage of patients undergo thyroidectomy before precise histological diagnosis [9].

Total thyroidectomy exposes the patient unnecessarily to the risks of surgery, such as recurrent laryngeal nerve damage and hypoparathyroidism without conferring any survival advantage. Though thyroidectomy helps relieve compressive symptoms, steroids also relieve symptoms immediately as lymphomas are extremely sensitive to steroids. Chemotherapy followed by radiotherapy is considered the standard treatment [10]. Role of surgery is not well defined [11]. According to literature, PTL is associated with a poor prognosis [12].

CONCLUSIONS

Thyroid lymphoma should always be suspected in patients presenting with thyroid swelling. Surgery should never be performed without excluding lymphoma with biopsy.

REFERENCES

1. Mack LA, Pasiaka JL; an evidence-based approach to the treatment of thyroid lymphoma. *World J Surg*, 2007; 31(5): 978-986.
2. Graff-Baker A, Roman SA, Thomas DC, Udelsman R, Sosa JA; Prognosis of primary thyroid lymphoma: demographic, clinical, and pathologic predictors of survival in 1,408 cases. *Surgery*, 2009; 146(6): 1105-1115.

3. Thieblemont C, Mayer A, Dumontet C, Barbier Y, Callet-Bauchu E, Felman P, Coiffier B; Primary thyroid lymphoma is a heterogeneous disease. *J Clin Endocrinol Metab*, 2002; 87(1): 105-111.
4. Hwang YC, Kim TY, Kim WB, Shong YK, Yi KH, Shong M, Chung JH; Clinical characteristics of primary thyroid lymphoma in Koreans. *Endocr J*, 2009; 56(3): 399-405.
5. Watanabe N, Noh JY, Narimatsu H, Takeuchi K, Yamaguchi T, Kameyama K, Ito K; Clinicopathological features of 171 cases of primary thyroid lymphoma: a long-term study involving 24553 patients with Hashimoto's disease. *Br J Haematol*, 2011; 153(2): 236-243.
6. Widder S, Pasioka JL; Primary thyroid lymphomas. *Curr Treat Options Oncol*, 2004; 5(4): 307-313.
7. Kwak JY, Kim EK, Ko KH, Yang WI, Kim MJ, Son EJ, Kim KW; Primary thyroid lymphoma: role of ultrasound-guided needle biopsy. *J Ultrasound Med*, 2007; 26(12): 1761-1765.
8. Beasley MJ; Lymphoma of the Thyroid and Head and Neck. *Clin Oncol*, 2012; 24(5): 345-351.
9. Alzouebi M, Goepel JR, Horsman JM, Hancock BW; Primary thyroid lymphoma: the 40 year experience of a UK lymphoma treatment centre. *Int J Oncol*, 2012; 40(6): 2075-2080.
10. Ragusa M, Cirocchi R, Puxeddu E, Cavaliere A, De Feo P; Surgical treatment of primitive thyroid lymphoma. *Tumori*, 2009; 95(6): 712-719.
11. Klyachkin ML, Schwartz RW, Cibull M; Thyroid lymphoma: Is there a role for surgery? *Am Surg*, 1998; 64(3): 234-238.
12. Antonino A, Rosato A, Barbato F, De Dominicis G, De Palma M; Thyroid lymphoma: diagnostic pitfalls on pre-operative ago-biopsy. *Ann Ital Chir*, 2013; 84(5): 541-544.