Defying expectations: follicular carcinoma thyroid with lung metastasis and elevated CA 125: images

Agil Babu[1*], Pinakin Patel[2], Kamal Kishore Lakhera[2], Suresh Singh[3], Pranav M. Singhal[1], Naina Kumar[1], Deeksha Mehta[1]

European Journal of Medical Case Reports
Volume 7(6):130–131
https://doi.org/10.24911/ejmcr/173-1679213218

ABSTRACT

Background: Follicular thyroid carcinoma (FTC) is a type of thyroid cancer that arises from the follicular cells of the thyroid gland. It accounts for about 10%-15% of all thyroid cancers.

CA 125 is a protein that is often used as a tumor marker for ovarian cancer, but it can also be elevated in other types of cancers, including thyroid cancer. The significance of raised CA 125 levels in FTC is not clear, but it indicates a more advanced or aggressive form of the disease [1,2].

Case Presentation: A 62-year-old male presented with a painless neck mass (Figure 1) for 8 years. Ultrasonography revealed a solid nodule in the left lobe of the thyroid gland. Fine-needle aspiration cytology of the nodule showed features of follicular neoplasm. Contrast-enhanced computed tomography (CECT) abdomen and blood routine ruled out other causes of raised CA 125. Chest X ray and CECT neck (Figure 2) and thorax showed lung (Figure 3) and thoracic vertebra metastasis (Figure 5). Total thyroidectomy with bilateral central compartment lymph node dissection was performed. Histopathology confirmed FTC (Figure 4) with capsular invasion, and lymphovascular and perineural invasion and lymph node-positive. The tumor was classified as T3bN1a according to the tumor, nodes, and metastasis staging system. I131 scan post-surgery showed uptake in lung metastasis sites which confirmed the diagnosis.

Conclusion: The role of serum tumor markers, such as CA 125, in predicting the prognosis of FTC is not well established. However, elevated CA 125 levels have been reported in some cases of thyroid carcinoma with metastasis, and may reflect the presence of peritoneal or pleural involvement [3,4]. This case highlights the aggressive nature of FTC with metastasis and the limited treatment options available for patients with advanced disease. CA 125 as a prognostic marker in FTC warrants further investigation [5].

Keywords: Follicular neoplasm, lung metastasis, CA 125.

Received: 19 March 2022 **Accepted:** 01 May 2022 **Type of Article:** IMAGE **Specialty:** Oncology

Correspondence to: Agil Babu
*Senior Resident, Department of Surgical Oncology, SMS Medical College, Jaipur, India.
Email: agilbabup143@gmail.com
Full list of author information is available at the end of the article.

Figure 1. *Clinical image of patient with neck mass.*

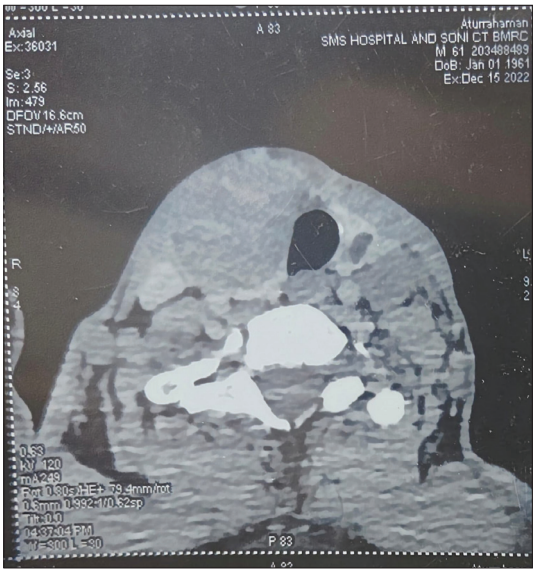

Figure 2. *CECT neck showing thyroid mass.*

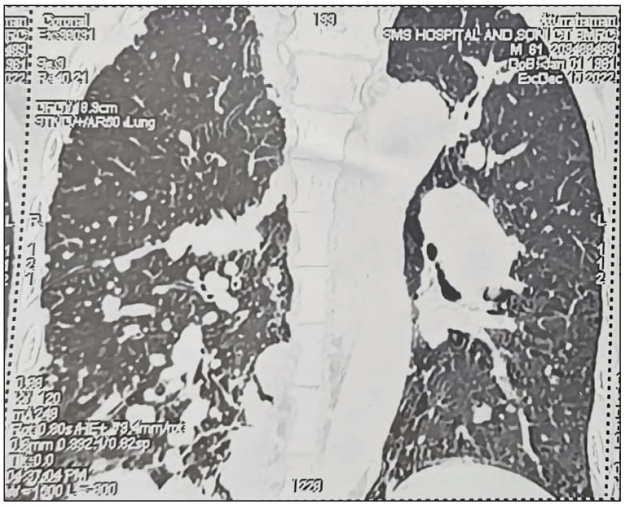

Figure 3. *CECT thorax showing bilateral lung metastasis.*

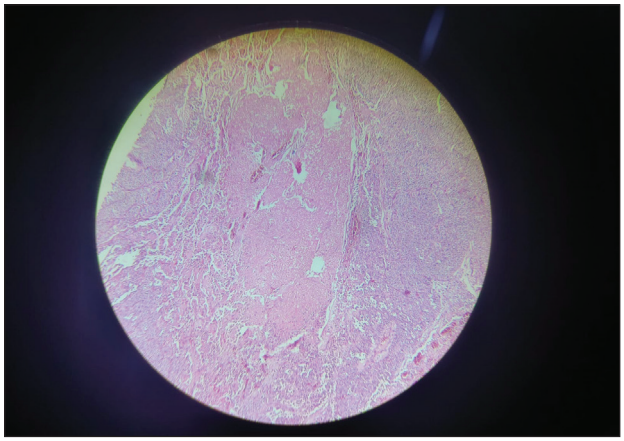

Figure 4. *Histopathology of FTC.*

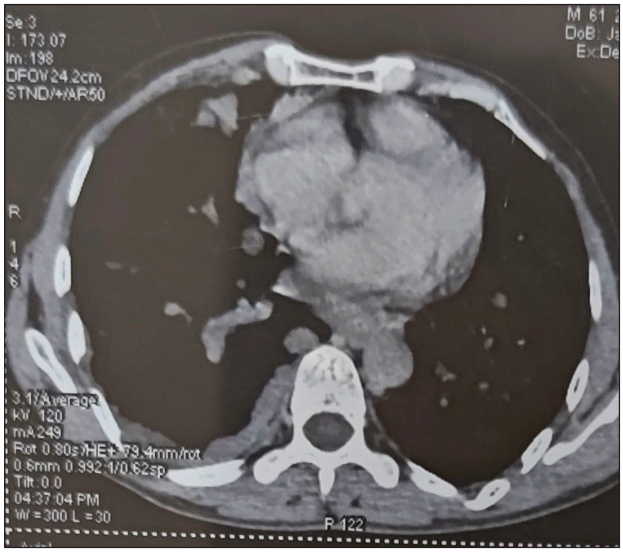

Figure 5. *CECT thorax showing thoracic vertebra metastasis.*

Conflict of interests

The authors declare that there is no conflict of interest regarding the publication of this article.

Funding

None.

Consent to participate

Due permission was obtained from the patient to publish the case and the accompanying images.

Ethical approval

Ethical approval is not required at our institution to publish an anonymous case report.

Author details

Agil Babu[1], Pinakin Patel[2], Kamal Kishore Lakhera[2], Suresh Singh[3], Pranav M. Singhal[1], Naina Kumar[1], Deeksha Mehta[1]

1. Senior Resident, Department of Surgical Oncology, SMS Medical College, Jaipur, India
2. Associate Professor, Department of Surgical Oncology, SMS Medical College, Jaipur, India
3. Senior Professor and HOD, Department of Surgical Oncology, SMS Medical College, Jaipur, India

References

1. Jegerlehner S, Bulliard JL, Aujesky D, Rodondi N, Germann S, Konzelmann I. Follicular thyroid carcinoma with metastases: survival, prognostic factors, and optimal treatment. Ann Surg Oncol. 2013 May;20(5):1658–65. Epub 2012 Dec 19.
2. de la Fuente H, Tavares C, Moura M, et al. Follicular thyroid carcinoma with distant metastasis: case report and review of the literature. Case Rep Endocrinol. 2014;2014:858713.
3. Das CK, Sharma P, Singh S, Chumber S, Kumar S. Follicular thyroid carcinoma with distant metastasis: a case report and review of literature. Indian J Surg Oncol. 2016 Jun;7(2):242–6. Epub 2015 Dec 23.
4. Hashimoto T, Matsubara F, Mizukami Y, Miyazaki I, Michigishi T, Yanaihara N. Tumor markers and oncogene expression in thyroid cancer using biochemical and immunohistochemical studies. Endocrinol Jpn. 1990 Apr;37(2):247–54. https://doi.org/10.1507/endocrj1954.37.247
5. Gao Y, Lu H, Yuan Z, Zhu R. Tumor markers in thyroid carcinoma with pulmonary metastases after thyroidectomy. Lab Med. 2009 Jan;40(1):30–4. https://doi.org/10.1309/LM8FZXW08BRJSJSR