

Introduction :

- Endobronchial melanoma comprises 4.5% of all endobronchial metastases [1,2].
- The incidences of laryngeal and mediastinal metastases are reported to be 1.1% [3] and 16% [4], respectively.
- We describe a case of late recurrent metastatic melanoma presenting with simultaneous left mainstem endobronchial lesion, mediastinal lymph node, and laryngeal involvement at 15 years after initial manifestation of melanoma.

Case Description:

A 45-year-old Ecuadorian man with a history of left foot melanoma that was resected in 2003 presents with a 2-month history of nonproductive cough, left sided pleuritic chest pain, and dyspnea.

ABG showed pH 7.46 / PaCO₂ 31 mmHg / PaO₂ 58 mmHg / bicarbonate 22.0 mmol/L. Complete blood count, chemistries, and coagulation parameters were within normal limits.

Chest x-ray demonstrated near white-out of the left hemithorax.

Computed tomography revealed atelectasis of the lingula and the left lower lobe due to an endobronchial mass in the left mainstem bronchus with concurrent subcarinal lymphadenopathy (Figure 1).

HIV testing, IFN- γ release assay and NAAT test for tuberculosis were negative.

During flexible bronchoscopy, a dark blue pigmented nodule was visualized over the left laryngeal surface of the epiglottis (Figure 2).

Brush cytology of the left mainstem endobronchial mass and transbronchial needle aspiration of the subcarinal lymph nodes were non-diagnostic.

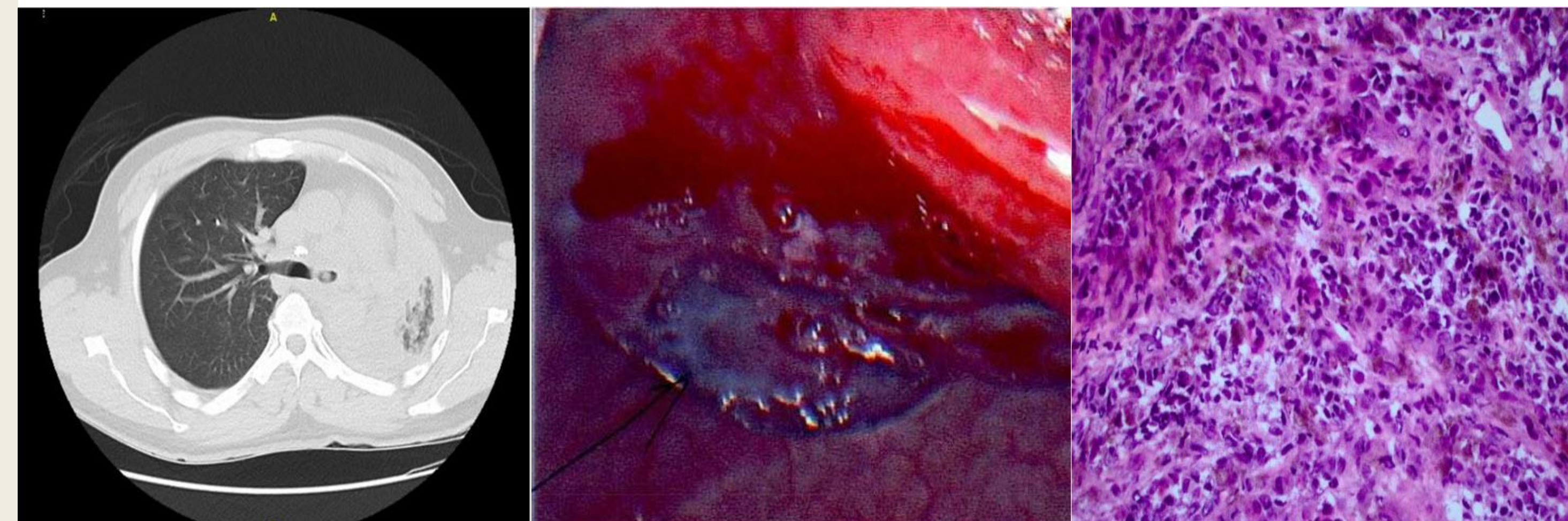
A biopsy of the vocal cord nodule was performed and histopathology revealed evidence of brown melanin pigment (Figure 3) that was positive for melanoma specific antibodies.

Tissue biopsy of the subcarinal lymph nodes, by mediastinoscopy, also revealed the presence of brown melanin pigment that was also positive for melanoma specific antibodies.

Figures:

	<u>Laryngeal Nodule</u>		<u>Subcarinal Lymph Node</u>
S-100	POSITIVE	S-100	POSITIVE
HMB45	POSITIVE	CK5/6	NEGATIVE
AE1 / AE3	NEGATIVE	AE1 / AE3	NEGATIVE
Melan A / Mart - 1	POSITIVE		
Chromogranin A	NEGATIVE		

Table 1 - Solid Tumor Immunohistochemical Analysis of the biopsied tissue sites. S-100 - neural crest derivatives - including melanoma; HMB45 (Human Melanoma Black 45) - melanoma associated marker; Melan A/Mart-1 - melanoma associated marker; AE1/AE3 - monoclonal antibodies to cytokeratin; chromogranin A - neuroendocrine marker; CK5/6 - (cytokeratin 5/6) - squamous and mesothelial cells.



(Left) **Figure 1:** Computed tomographic scan showing the right sided lung atelectasis with left mainstem endobronchial mass.

(Middle) **Figure 2:** Blue pigmented lesion noted on the left laryngeal fold during nasopharyngoscopy.

(Right) **Figure 3:** Brown melanin pigmented noted on tissue biopsy confirming diagnosis of melanoma.

Discussion:

This case is notable for the late recurrence time of 15 years is an uncommonly long period of time. In a retrospective analysis of 1372 stage 1 and 2 melanoma survivors that survived more than 10 years, only 5.6% of these patients had a recurrence at least 10 years after initial diagnosis [5].

There are no consensus treatment guidelines or large clinical trials to guide the specific management of endobronchial, laryngeal, or mediastinal metastases.

Among patients with pulmonary metastases, data from the International Registry of Lung Metastases showed improved five and ten year survival rates after complete metastasectomy compared to incomplete resection (22% vs 0% and 16% vs 0%, respectively) [6].

One review of 39 cases of laryngeal metastases, spanning from 1900 to 2010, have described the use of total laryngectomy and more modern techniques of laser excision [7].

Expert opinion on the basis of case series advocate for complete surgical resection of involved mediastinal lymph nodes [8,9,10].

Immunotherapy, using anti-PD-1 and CTLA-4 antibodies, has become the mainstay of therapy for malignant melanoma therapy and has largely supplanted the use of dacarbazine due to superior efficacy and median survival rates [11,12].

References:

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