

# UC Irvine

## UC Irvine Previously Published Works

### Title

Diagnostic clue for pleural metastasis of malignant melanoma

### Permalink

<https://escholarship.org/uc/item/0xc1x9q7>

### Journal

Journal of General and Family Medicine, 19(6)

### ISSN

2189-6577

### Authors

Saraya, Takeshi  
Light, Richard W  
Fujiwara, Masachika  
et al.

### Publication Date

2018-11-01

### DOI

10.1002/jgf2.200

Peer reviewed

# Diagnostic clue for pleural metastasis of malignant melanoma

Takeshi Saraya MD, PhD<sup>1</sup>  | Richard W. Light MD<sup>2</sup> | Masachika Fujiwara MD, PhD<sup>3</sup> | Hajime Takizawa MD, PhD<sup>1</sup>

<sup>1</sup>Department of Respiratory Medicine, Kyorin University School of Medicine, Mitaka, Tokyo, Japan

<sup>2</sup>Division of Allergy/Pulmonary/Critical Care, Vanderbilt University Medical Center, Nashville, Tennessee

<sup>3</sup>Department of Pathology, Kyorin University School of Medicine, Mitaka, Tokyo, Japan

## Correspondence

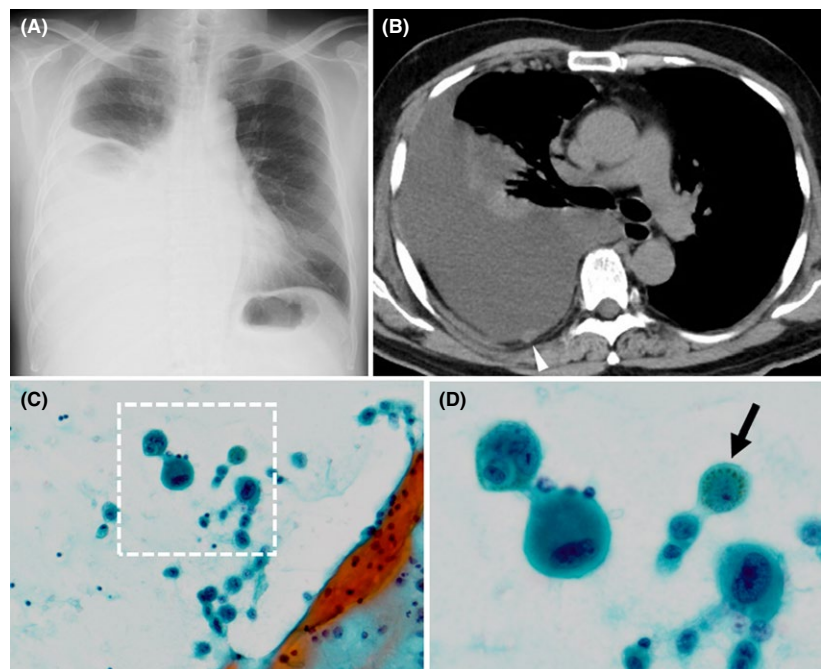
Takeshi Saraya, Department of Respiratory Medicine, Kyorin University School of Medicine, Mitaka, Tokyo, Japan.

Email: sara@yd5.so-net.ne.jp

**KEYWORDS:** malignant melanoma, melanin pigment, pleural effusion

A 69-year-old man was referred to our respiratory department due to a massive pleural effusion in the right hemithorax (Figure 1A). He was diagnosed with malignant melanoma of nodular type 4 years previously on resection of his black-colored skin lesions in the occipital region; the condition was well controlled with repeated subcutaneous interferon-beta injections. Thoracic computed tomography confirmed massive right-sided pleural effusion with a nodule on the parietal pleura (Figure 1B, arrowhead). Diagnostic thoracentesis revealed

yellow-colored fluid with abundant atypical multinucleated cells ( $\times 400$ , Figure 1C), indicating malignant mesothelioma or lung adenocarcinoma, on Papanicolaou staining ( $\times 40$ ). However, a few atypical cells (or pleural macrophages) had coarsely granular brown pigments in the cytoplasm. (Figure 1D, arrow), suggesting malignant melanoma.<sup>1</sup> Malignant melanoma has the capacity to metastasize widely to every organ in the body; however, the incidence of pleural effusion can be detected only in 2% of thoracic metastasis of malignant melanoma.<sup>2</sup>



**FIGURE 1** Chest X-ray (A) demonstrated a massive pleural effusion at right side. Nonenhanced thoracic computed tomography revealed massive pleural effusion at right hemithorax together with a tiny nodule on the parietal pleura (B, arrowhead). On Papanicolaou staining, pleural fluid demonstrated abundant atypical multinucleated cells ( $\times 400$ , C) in which a few cells had coarsely granular brown pigments in the cytoplasm. (D, arrow)

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2018 The Authors. *Journal of General and Family Medicine* published by John Wiley & Sons Australia, Ltd on behalf of Japan Primary Care Association.

Furthermore, pleural metastasis of malignant melanoma is rarely reported in Japan due to its low incidence; thus, cytodiagnosis of melanoma is frequently difficult, especially in amelanotic melanoma. However, physicians should consider malignant melanoma in the differential diagnosis of pleural effusion.

#### CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

#### ORCID

Takeshi Saraya  <http://orcid.org/0000-0003-0502-8128>

#### REFERENCES

1. Longatto Filho A, de Carvalho LV, Santos Gda C, et al. Cytologic diagnosis of melanoma in serous effusions. A morphologic and immunocytochemical study. *Acta Cytol.* 1995;39(3):481–484.
2. Chen JT, Dahmash NS, Ravin CE, et al. Metastatic melanoma in the thorax: report of 130 patients. *AJR Am J Roentgenol.* 1981;137(2):293–298.

**How to cite this article:** Saraya T, Light RW, Fujiwara M, Takizawa H. Diagnostic clue for pleural metastasis of malignant melanoma. *J Gen Fam Med.* 2018;19:217–218.  
<https://doi.org/10.1002/jgf2.200>