

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

Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial License, available at <https://creativecommons.org/licenses/by-nc/4.0/>

Peer reviewed

Diagnostic clue for pleural metastasis of malignant melanoma

Takeshi Saraya MD, PhD¹  | Richard W. Light MD² | Masachika Fujiwara MD, PhD³ | Hajime Takizawa MD, PhD¹

¹Department of Respiratory Medicine, Kyorin University School of Medicine, Mitaka, Tokyo, Japan

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

³Department 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.¹ 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.²

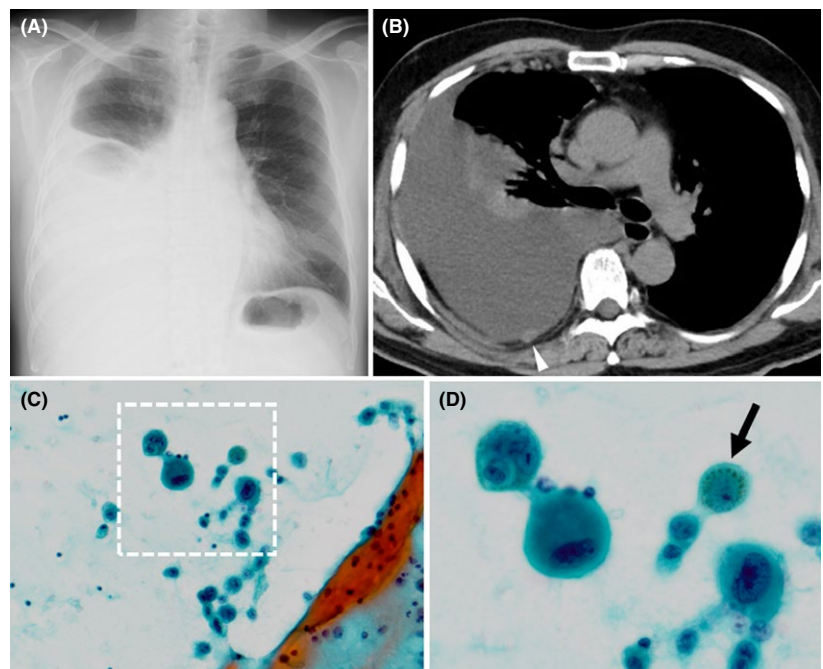


FIGURE 1 Chest X-ray (A) demonstrated a massive pleural effusion at right side. Nonenhanced thoracic computed tomography revealed massive pleural effusion at right hemithorax together with a tiny nodule on the parietal pleura (B, arrowhead). On Papanicolaou staining, pleural fluid demonstrated abundant 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>