

1 **Malignant Pleural Effusion in a Patient with Melanoma**

2 —Clinical Images—

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1 Case Report

2 A 71-year-old woman presented with left-sided chest pain for a period of 20 days. The patient
3 had a medical history of melanoma over her left leg 3 years earlier, and suffered from both
4 hypertension and type 2 diabetes. **She was diagnosed with melanoma (pT1N0M0 stage I)**
5 **three years previously. She underwent conservatively with radial excision of the melanoma**
6 **in left inguinal area. Four months ago, she was diagnosed as recurrent melanoma by left**
7 **inguinal lymph node excision, and then she was treated by interleukin-2.**

8 On physical examination, the patient was afebrile, and her vital signs were normal. There was
9 a dull percussion note and decreased breathing sounds over the left lower lung field. A chest
10 radiograph demonstrated a left pleural effusion (Figure A). **Subsequent chest ultrasound**
11 **revealed left complex, non-septated pleural effusion (Figure B)** and ultrasound-guided
12 thoracentesis yielded a black fluid (Figure C). Cytologic examination of the fluid by means of
13 "Diff-Quick" stain showed melanin pigment deposits within enlarged cells with hyperchromatic
14 nuclei and conspicuous nucleoli (Figure D). She was diagnosed as having melanoma with
15 left-sided malignant pleural effusion. Conservative management with a 12 F pigtail catheter
16 implant led to resolution of the symptoms within days. She declined further treatment of her

1 metastatic melanoma by chemotherapy.

2 Pleural fluid appearance is related to the causes of pleural effusion. Serous and blood tinged
3 presentations were the most common types of appearance noted for pleural fluid at
4 thoracentesis.¹ However, **black pleural effusions have been rarely reported, only in cases of**
5 **infection or hemorrhage and have also been described in pleural effusions due to fungi or**
6 **molds.**^{2,3} Metastatic melanoma to the thorax with pleural effusion is very rare (2%).⁴ **Metastatic**
7 **melanoma also has caused other instances of black fluid, such as black ascites.**⁵ Malignant
8 effusions are complications of metastatic malignant melanoma and black pleural effusion can be
9 a presentation of metastatic pleural effusion in melanoma.

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