

Who Shot the Cannonballs??

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PGY-3 LSUHSC-SHREVEPORT

HPI

- 39 year old male
- Presented to ED with 2 months of cough
- Associated with:
 - 2 months of night sweats
 - Weight loss of 20 lbs

Past History

- PMH: None
- PSH: None
- Social: 1 PPD **smoker** for 16 years
- Fam: No pertinent history

Physical Exam

- Vitals: 99/68, HR 105, Temp 98.4, SpO2 95%, Weight: 125 lb
- Gen – NAD, thin male
- Cardiovascular – RRR, no murmur/gallop/rub
- Respiratory – Occasional cough, clear to auscultation
- Abdomen – no masses, no organomegaly
- GU: No testicular masses noted
- Lymph – Small bilateral inguinal adenopathy, non-tender

Imaging

1. Innumerable pulmonary nodules and masses.
Metastatic disease leads the differential.
2. Mild degenerative bony change.



Labs (Abnormals)

- Hemoglobin: 11.7 g/dL; Platelets: 497 K/uL
- Sodium: 129 mmol/L; Chloride: 93 mmol/L
- Alk Phos: 204 U/L; AST: 48 U/L
- Sed Rate: 73 mm/hr; Uric Acid: 7.8 mg/dL; LDH: 2598 U/L
- hCG: 15 IU/L (normal 0-3); AFP 25.5 ng/mL (normal 0-8.3)

Imaging



- Bilateral pulmonary masses consistent with metastatic disease.
- Testicular ultrasound suggested. Although rare, primary pulmonary lymphoma may show a similar imaging pattern.
- Evidence of prior granulomatous disease

Imaging Reports

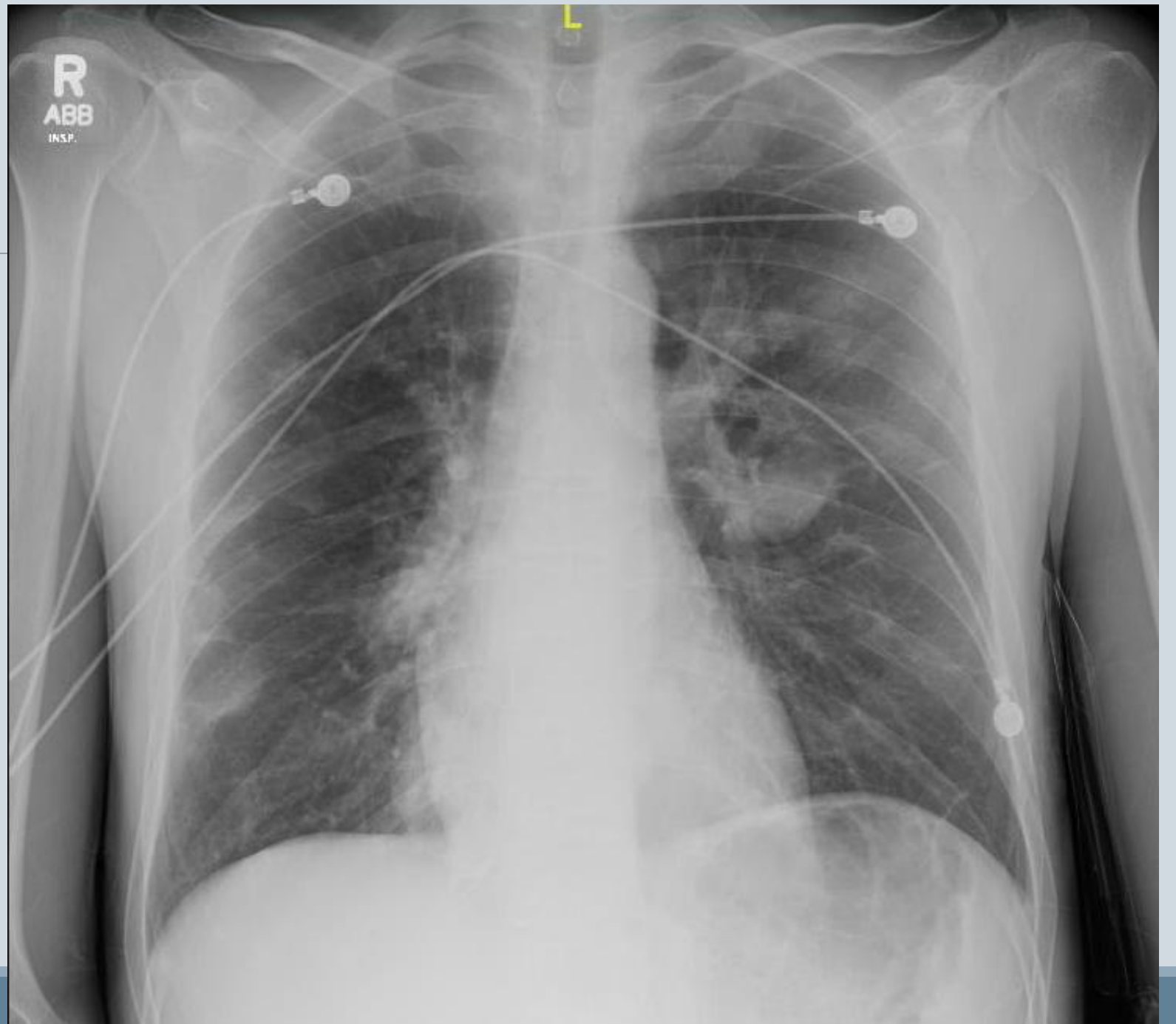
CT Chest (w/contrast): Numerous bilateral pulmonary masses of different sizes, largest measuring approximately 7 centimeters. Changes suggestive of **necrosis**. Right hilar lymph node measuring 1.6 cm. Sub-carinal adenopathy measuring 2.3 x 3.7 centimeters.

Testicular US: The overall appearance of the right testicle is uniform with **a focal hypoechoic mass** in the interpolar region of 1.5 x 1.3 cm. There is a vascular flow to the somewhat lobulated hypoechoic area.

Hospital Course

- Urology took patient for **radical orchiectomy** on hospital day 5, and pathology revealed a **malignant mixed germ cell tumor**. Seminoma and yolk sac components were predominant.
- Patient was then transferred to the oncology team and received four cycles of VIP chemotherapy. He is currently considered to be in **remission**, and the pulmonary lesions have cleared.

Repeat Imaging



Cannonball Metastasis

- **Cannonball metastases** are large, well-circumscribed, round pulmonary metastatic lesions. They may also be known as *envolée de balloons* which is French for balloon release.
- Cannonball mets are most commonly seen in **germ cell tumors (most commonly choriocarcinomas)**, and **renal cell carcinomas**. However, they may also be seen less commonly with prostate cancer, synovial sarcomas, and endometrial carcinomas.

Testicular Cancer

- About 8700 men are diagnosed with testicular cancer yearly, but less than 400 of those will die from their cancer.
- Testicular germ cell tumors are most commonly seen between the ages of 20 to 40.
- Young males with metastatic disease should have a testicular exam and a testicular ultrasound if suspicion is high despite a negative exam.

References

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