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


