Interesting Case Conference

4/15/2013
HISTORY

• 44 year old African-American female with left flank and left sided pleuritic pain and mild dyspnea

• History of nonischemic cardiomyopathy status post orthotopic heart transplantation approximately 2 months ago
  ▪ Had multifocal moderate rejection after transplantation
  ▪ Next three biopsies without evidence of rejection
  ▪ Most recent endomyocardial biopsy: mild diffuse cellular rejection


HISTORY

- Chest X-ray
  - No pneumothorax
  - Large left pleural effusion with adjacent atelectasis
  - Heart size difficult to evaluate due to effusion

- Left thoracentesis performed
  - 500 ml of opaque, dark red, bloody fluid obtained
DiffQuik
Question
Are they just reactive mesothelial cells
  or  is it adenocarcinoma?

Some of the “suspicious” cells display two-toned cytoplasm but the atypia is quite marked.

Vacuolated cytoplasm can be seen in reactive mesothelial cells.

Bothersome aspects of case
•  If it is heart failure, we’d expect bilateral effusions.

•  This was a unilateral effusion and it was bloody (500 cc bloody fluid) therefore worrisome for malignancy.

•  BUT imaging revealed no evidence of a lung mass or hilar lymphadenopathy.
How did we answer the question since not much was in the cell block?

- Remember 500 ml of bloody fluid was obtained.
- We pulled the specimen.
- Shook the heck out of it.
- Dispensed some of the fluid into 4 conical tubes.
- Centrifuged the tubes, suctioned the supernatant, and added cytolyte to lyse the blood.
- Repeated above process three times.
- Obtained decent cell buttons.
  - White buttons indicate that you likely have cells rather than a bunch of blood.
- Submitted buttons to make cell blocks.
Cell block: A lot more material, some of which was more concerning than before
Cell block
Cell block
Immunohistochemistry

Calretinin

(+) calretinin and D2-40
Immunohistochemistry

(-) MOC-31, EMA, TTF-1, Napsin-A, ER, PR, PAX8, CDX2,
• Left pleural fluid:
  ▪ No malignant cells identified.
  ▪ Reactive mesothelial cells and inflammatory cells.

• Second thoracentesis performed next day and approximately same amount obtained. Chest tube placed.
• No source of bleeding identified. No further bleeding during hospital course.
• Discharged 1.5 weeks later.