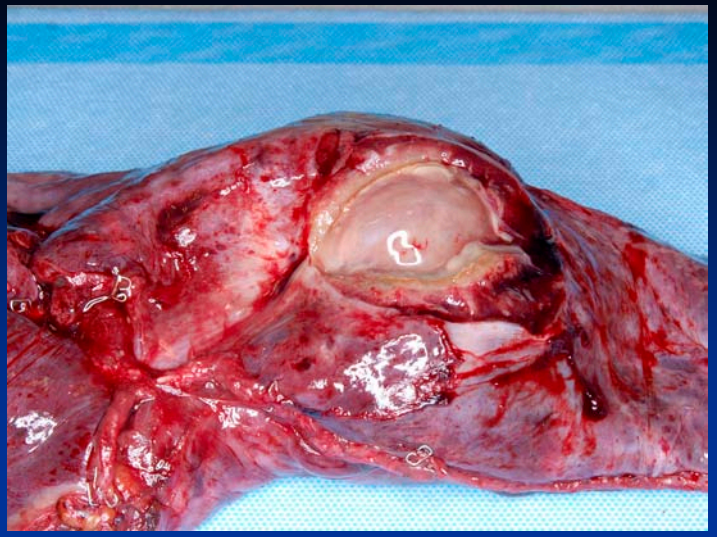

Surgical Management of Pulmonary Coccidioidomycosis with Video-Assisted Thoracic Surgery (VATS)

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Objective

- A basic review of Pulmonary Coccidioidomycosis and disease sequelae
- Discuss which patients may be considered for surgical resection
- Review personal current results of VATS for resection

Coccidiodomycosis

- Acute pulmonary infection may manifest as patchy unilateral or bilateral infiltrates
- 5-10% result in residual pulmonary sequelae such as persistent cavitary lesions or nodules
- Most are self limiting however chronic relapsing illness, complications and persistent symptoms may require surgical intervention

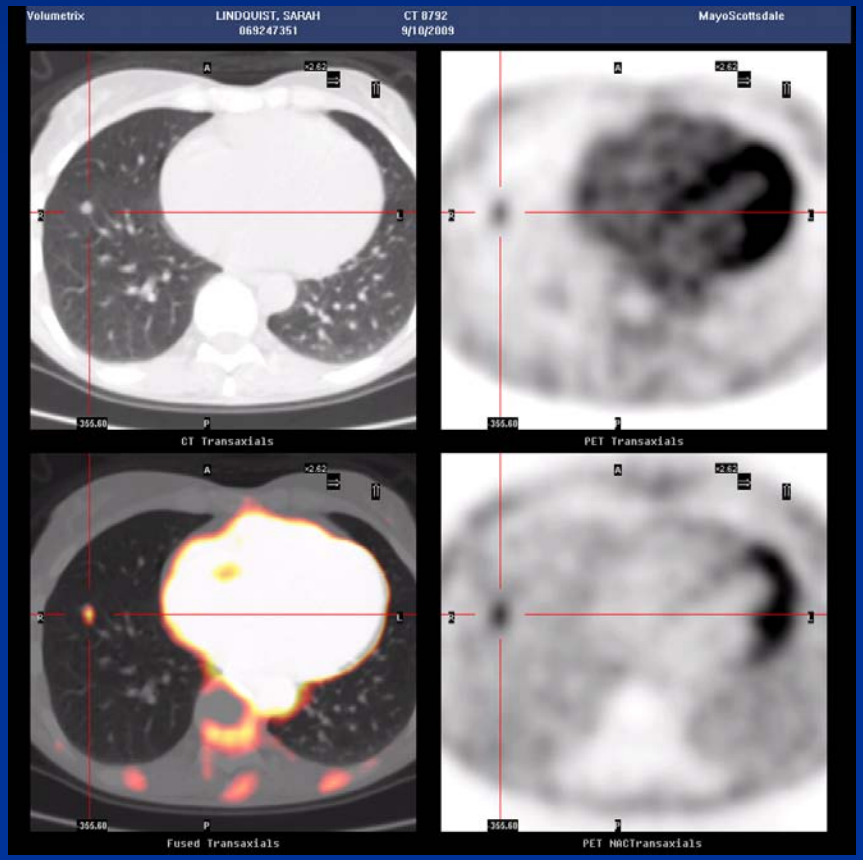
Patients for Surgical Consideration

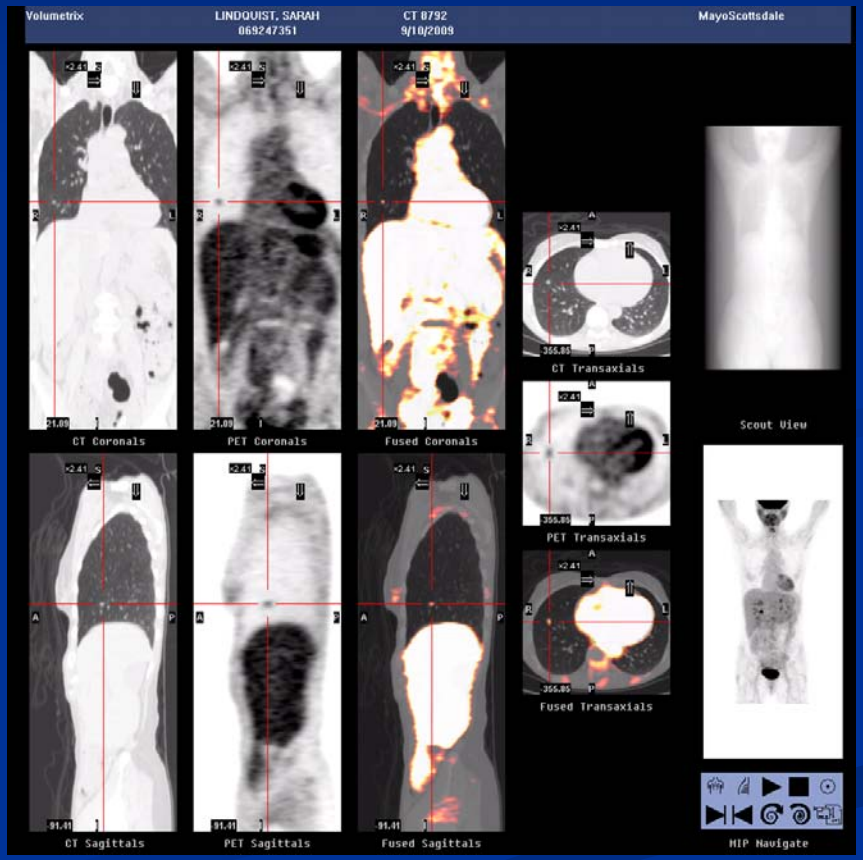
- Diagnostic Dilemmas
- Symptomatic: chronic cough, pain, hemotysis, fatigue, dyspnea, night sweats
- Non-resolving chronic cavities
- Current or planned Immunosuppression
- Complications: i.e. Pneumothorax & empyema

Case # 1

- 45-year old woman with history of metastatic colon cancer
- Newly diagnoses PET + lesion RLL suspicious for lung carcinoma versus metastatic colon cancer
- Interventional core needle biopsy “non-diagnostic”
- Cocci serology +

Radiographs Case #1





Movie Clip Case#1

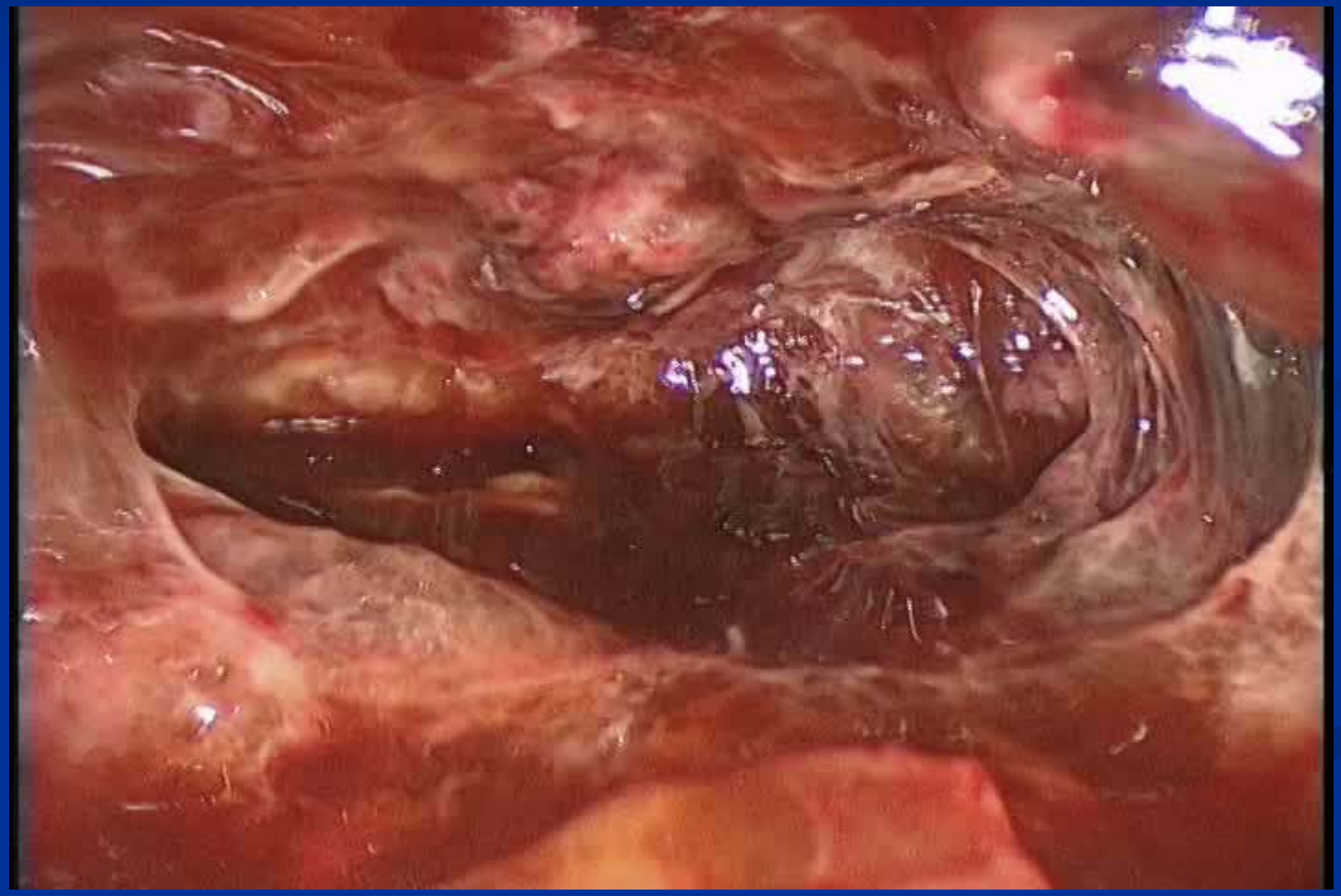
Case #2

- 44-year old male physician with know history of cocci infection on Fluconazole 400 mg daily for 18 months

- Presents to local emergency room with severe chest pain right.

Radiograph Case #2

Movie clip Case #2

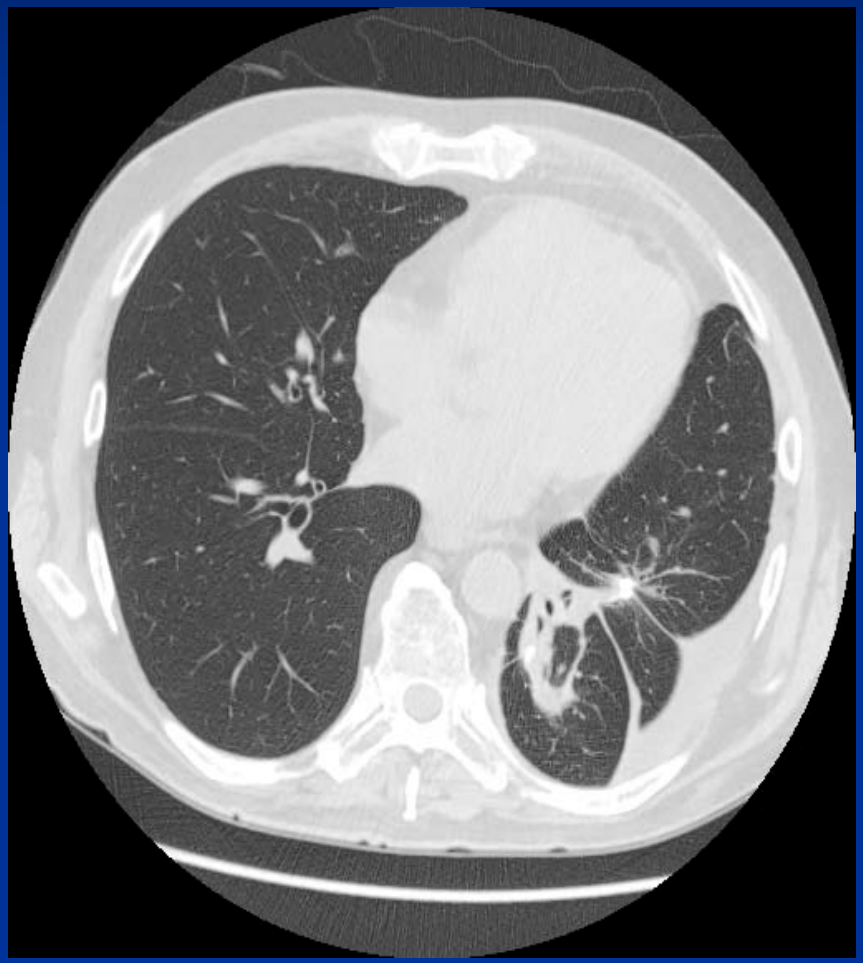


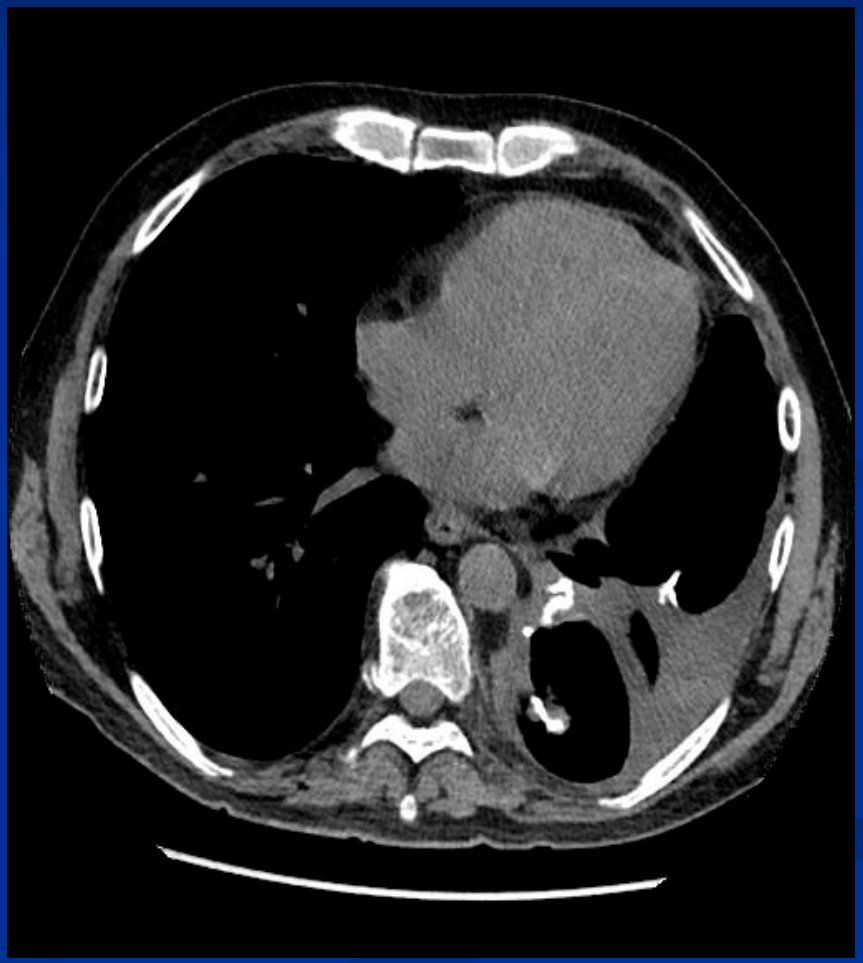
Case #3

- 52-year old male with history of renal failure on dialysis undergoing evaluation for transplantation

- Cavitary lesion in left lower lobe, treated now for 9 months with fluconazole (4 months) and voriconazole

Radiographic studies Case #3



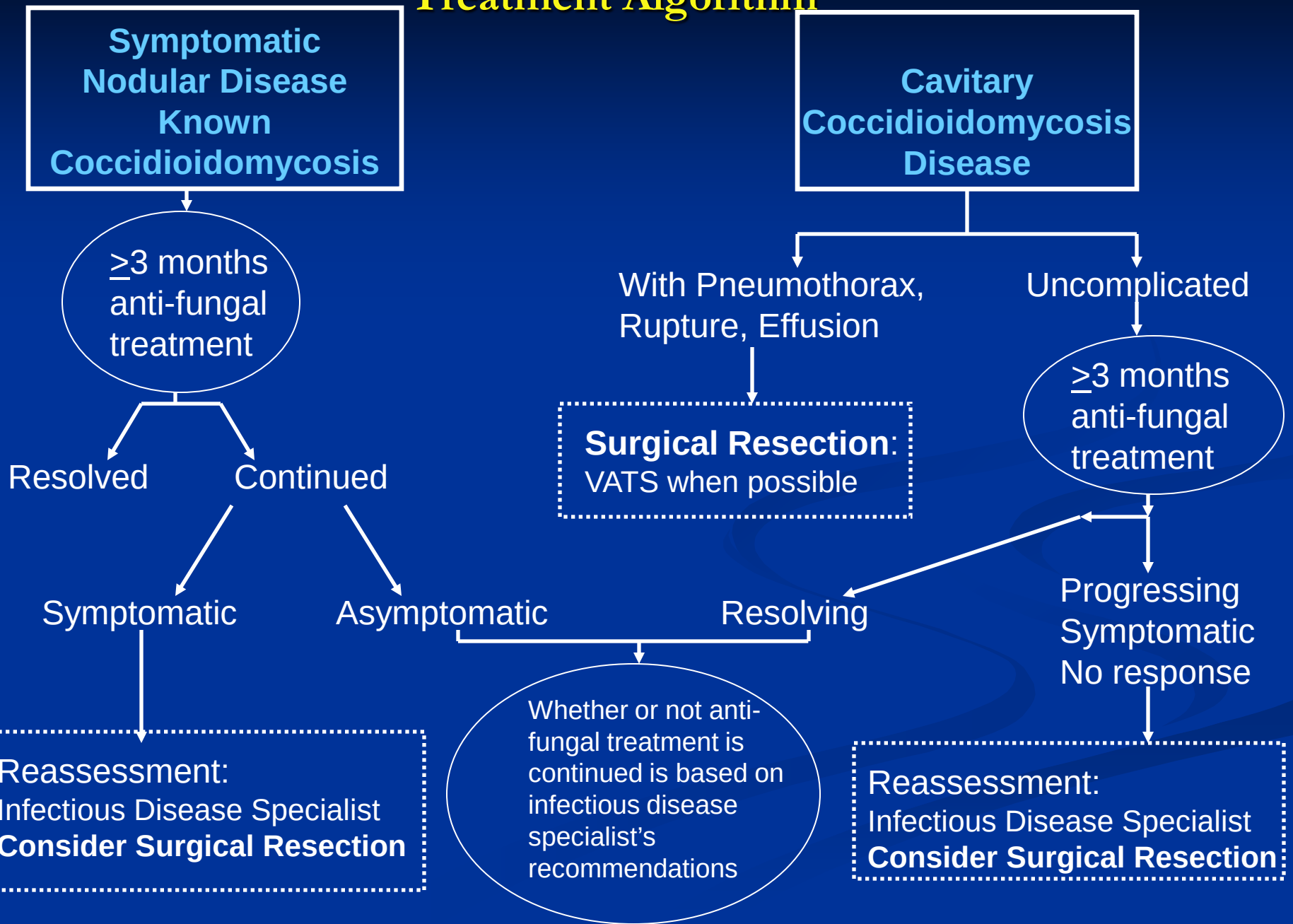


Movie Clip Case #3

Surgical Interventions

- **From 1998-2008:**
  - 1498 patients evaluated with pulmonary cocci
  - 86 (6%) surgical intervention (48:38 f/m; 58 yrs)
  - 2/3 of these surgeries were done with open thoracotomy
    - 98-2004 22% VATS
    - 2004-08 45% VATS
  - 21% post operative complications
  - 2% mortality

Symptomatic Nodular and Cavitary Coccidioidomycosis Treatment Algorithm



Most Recent Data

- **From 2008 – Present:**
  - 53 surgical interventions (27:26 f/m; mean 53 yrs)
  - 93 % were treated with VATS procedure
  - 7 % Post operative complications
  - no in hospital post operative mortalities
  - mean hospitalization 3.8 days

Conclusion

- Coccidioidomycosis is being diagnosed, treated and referred more promptly
- Patients with non-resolving pulmonary lesions are being referred for surgical intervention earlier
- The majority requiring surgical intervention can be treated with VATS resulting in few complications and short hospitalization with rapid recovery and return to function