

Medical thoracoscopy/pleuroscopy -Korean case-

Seoul National University Hospital

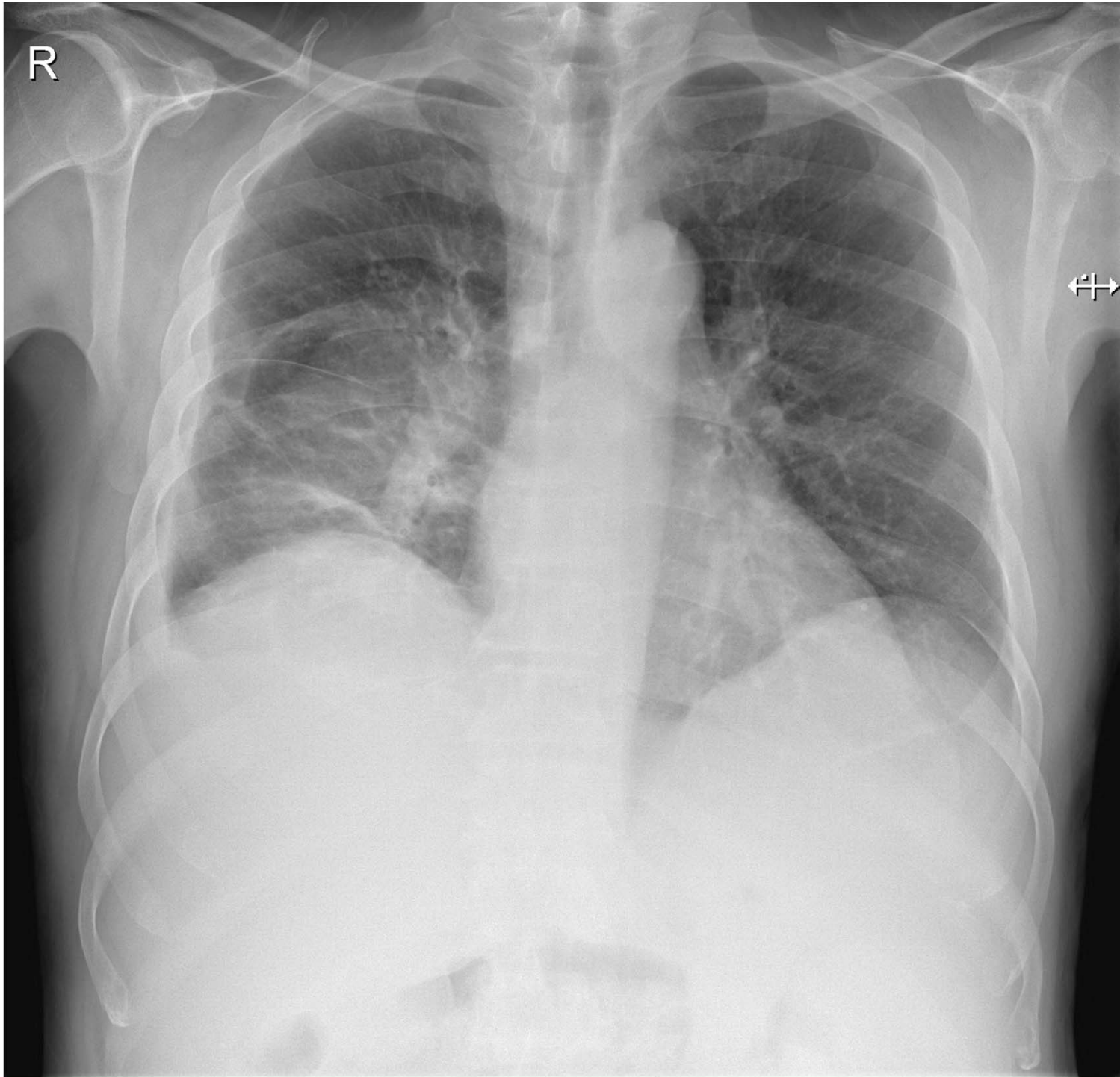
Young Sik Park

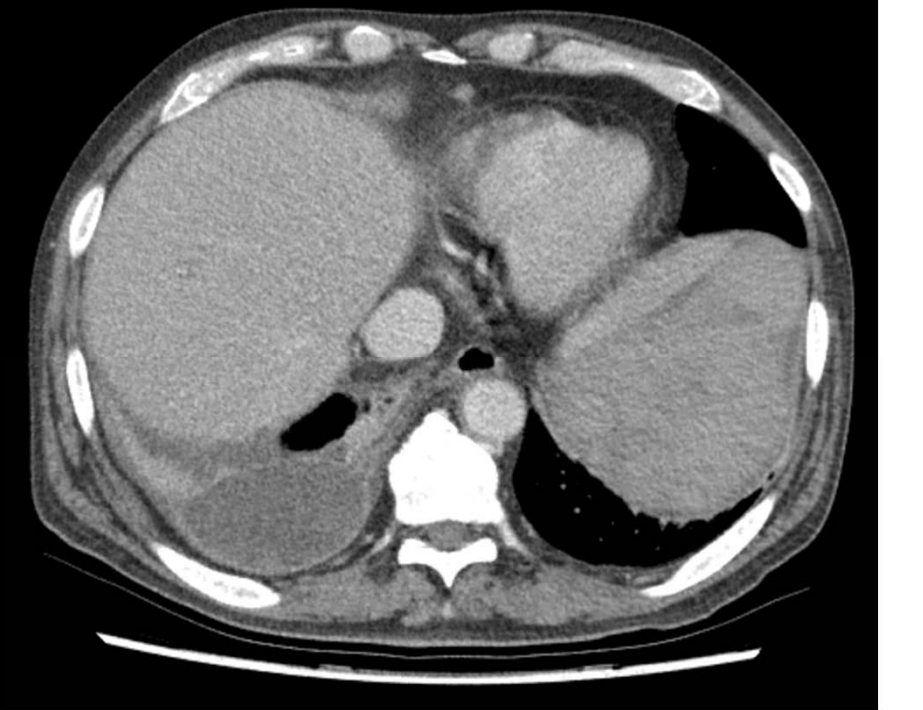
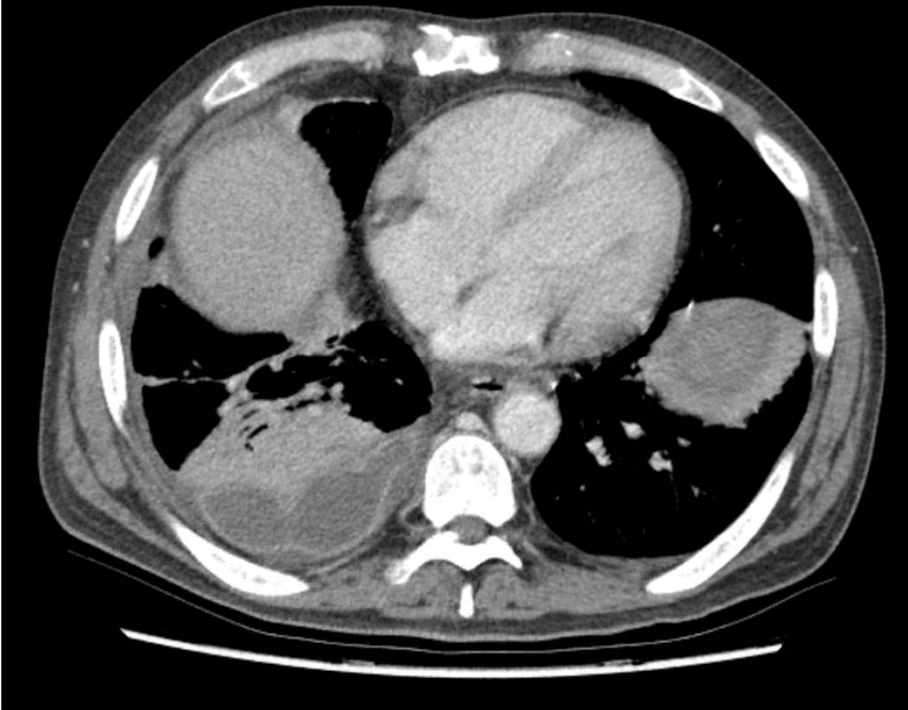
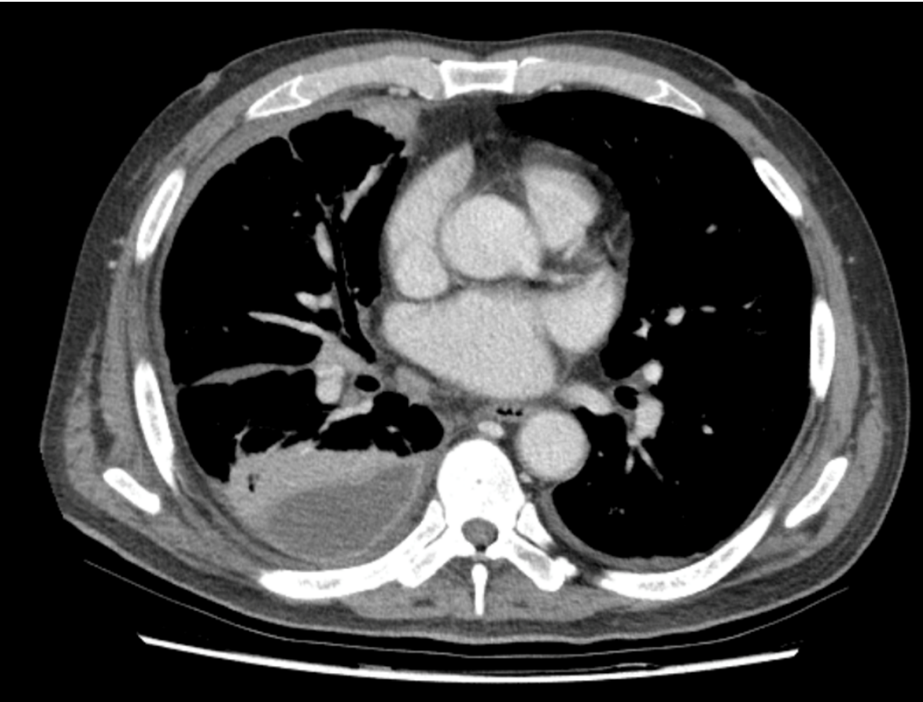
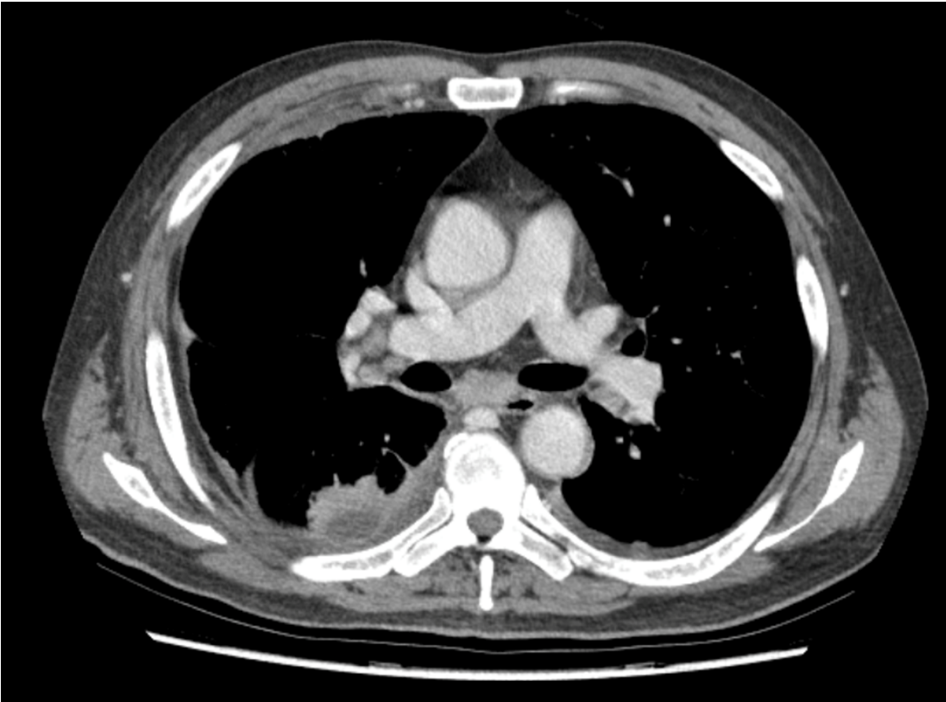
M/63

- CC: fever
- PI:
 - MDS s/p VIDAZA (2013-03 ~ 2015-01)
 - Frequent pneumonia
 - Pneumonia with effusion (2015-06-29 ~ 2015-07-12)
 - Fever with chilling sensation, mild dyspnea

Initial Lab

- V/S
 - BP: 97/54mmHg
 - HR: 112/min
 - RR: 22/min
 - BT: 37.5°C
- CBC: 8720-6.9-51k
- BUN/Cr 27/1.62
- CRP 14.38







SNUH

08/19/15 3:04:00 PM

ADM

Jeong, Jongtae

32238042

MI 0.4

TIs 0.2

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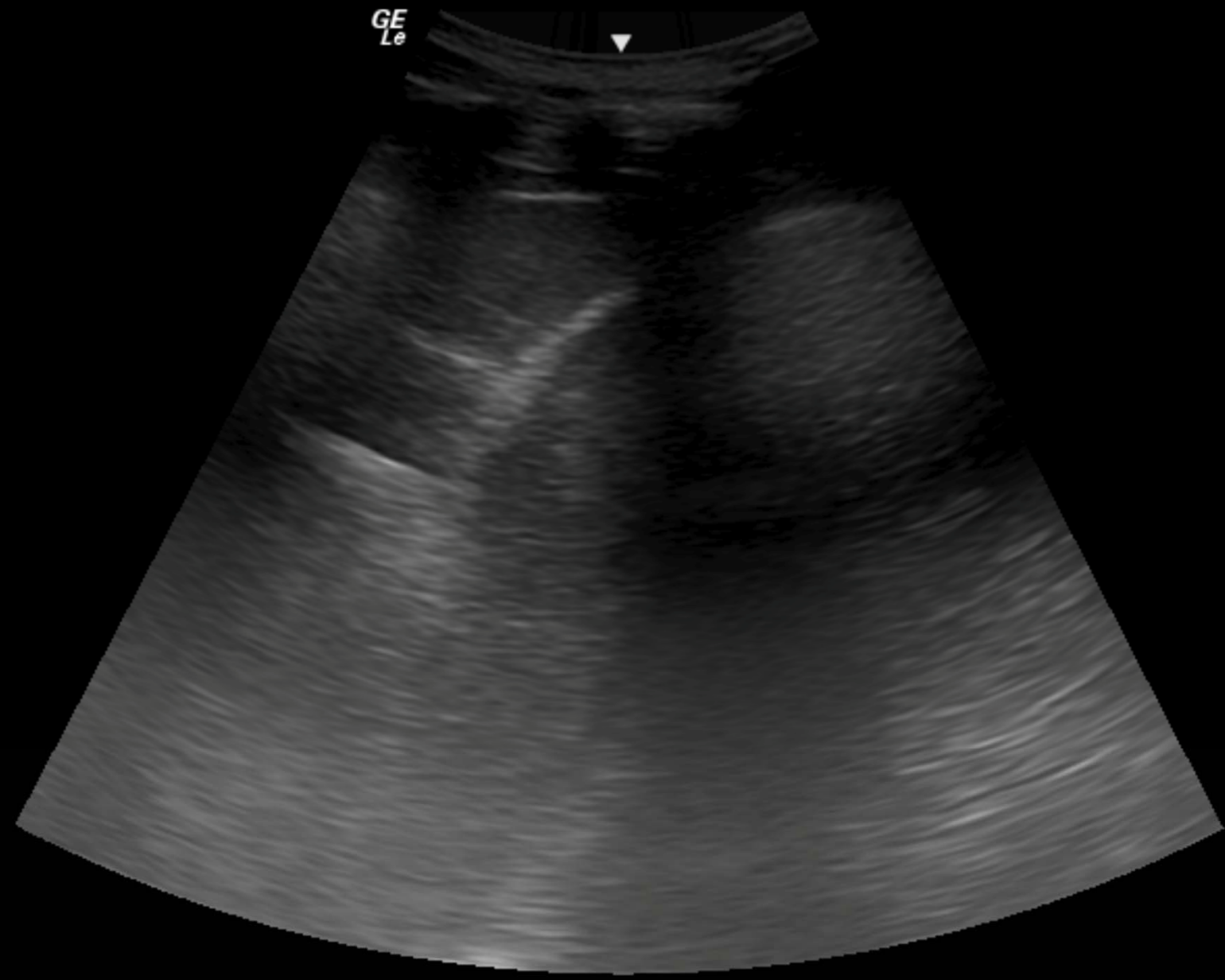
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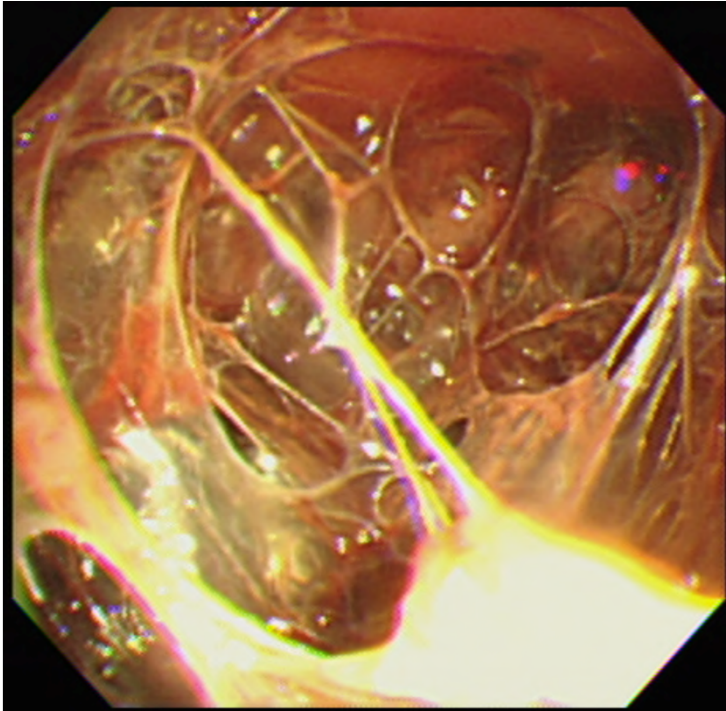
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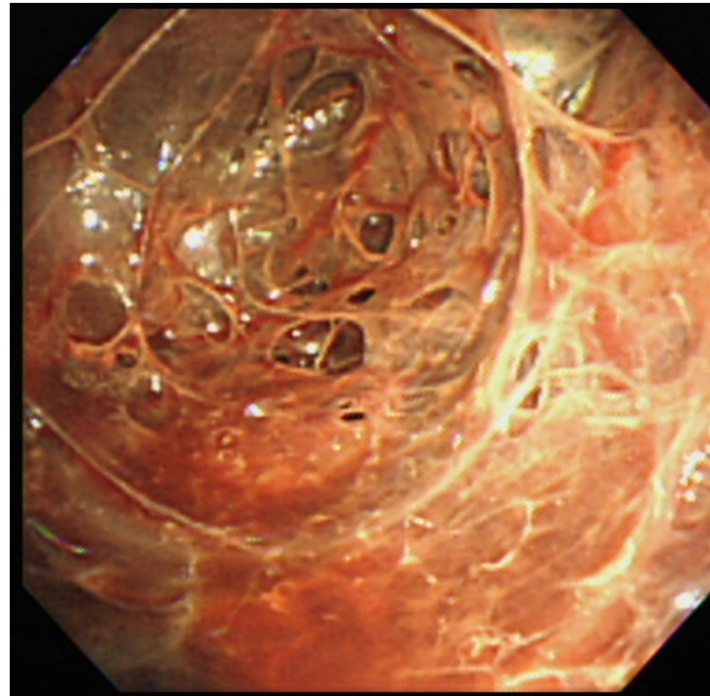
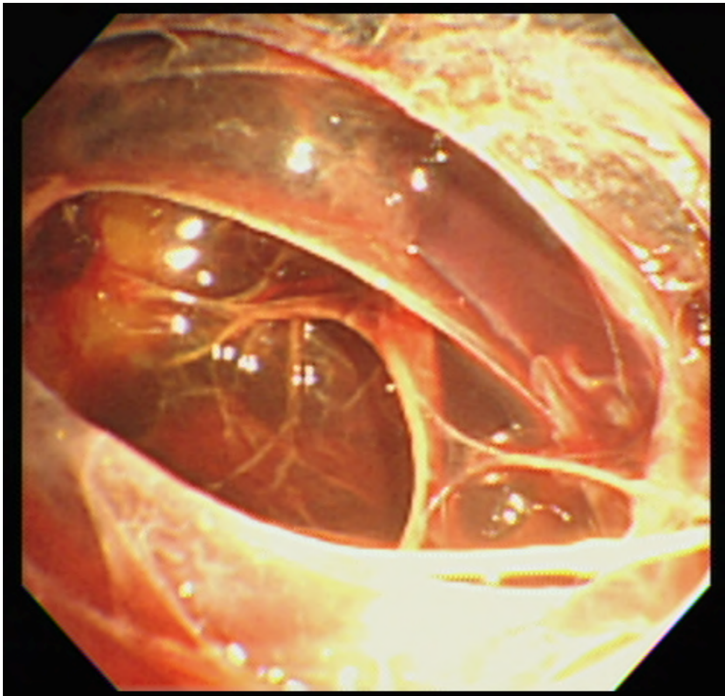


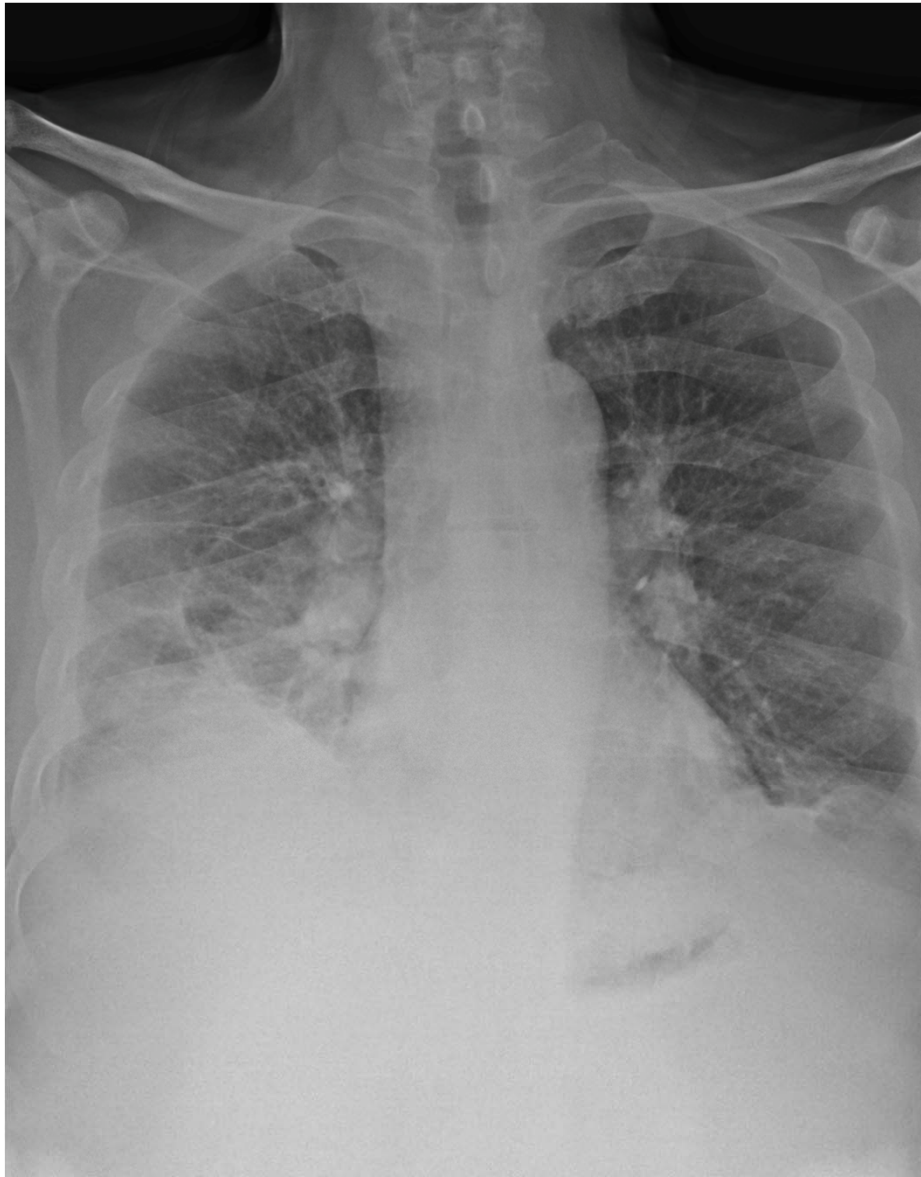


MT findings

Severe septation

Serosanguinous turbid effusion





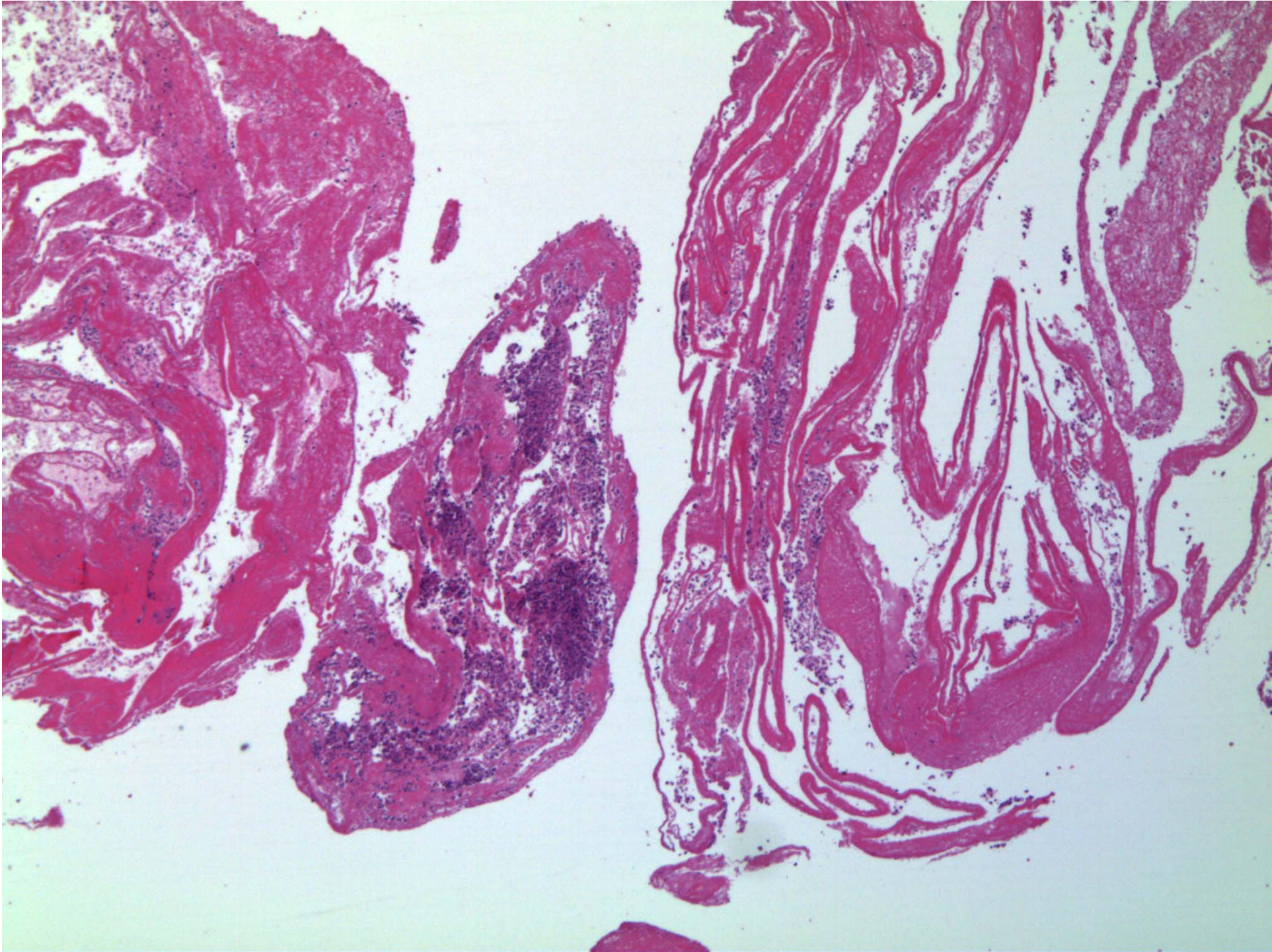
(Pre MT)

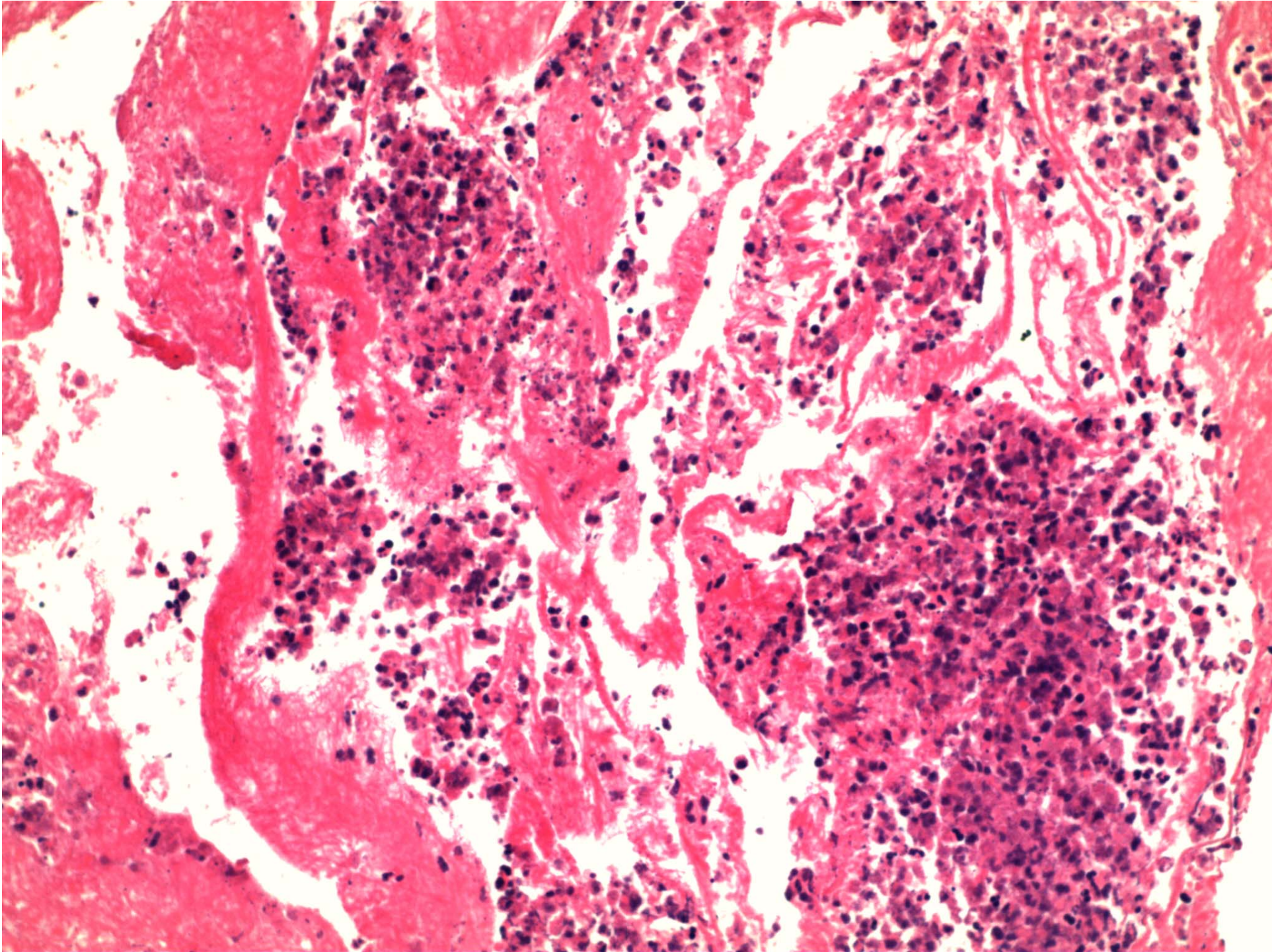


(Post MT)

Pleural effusion lab

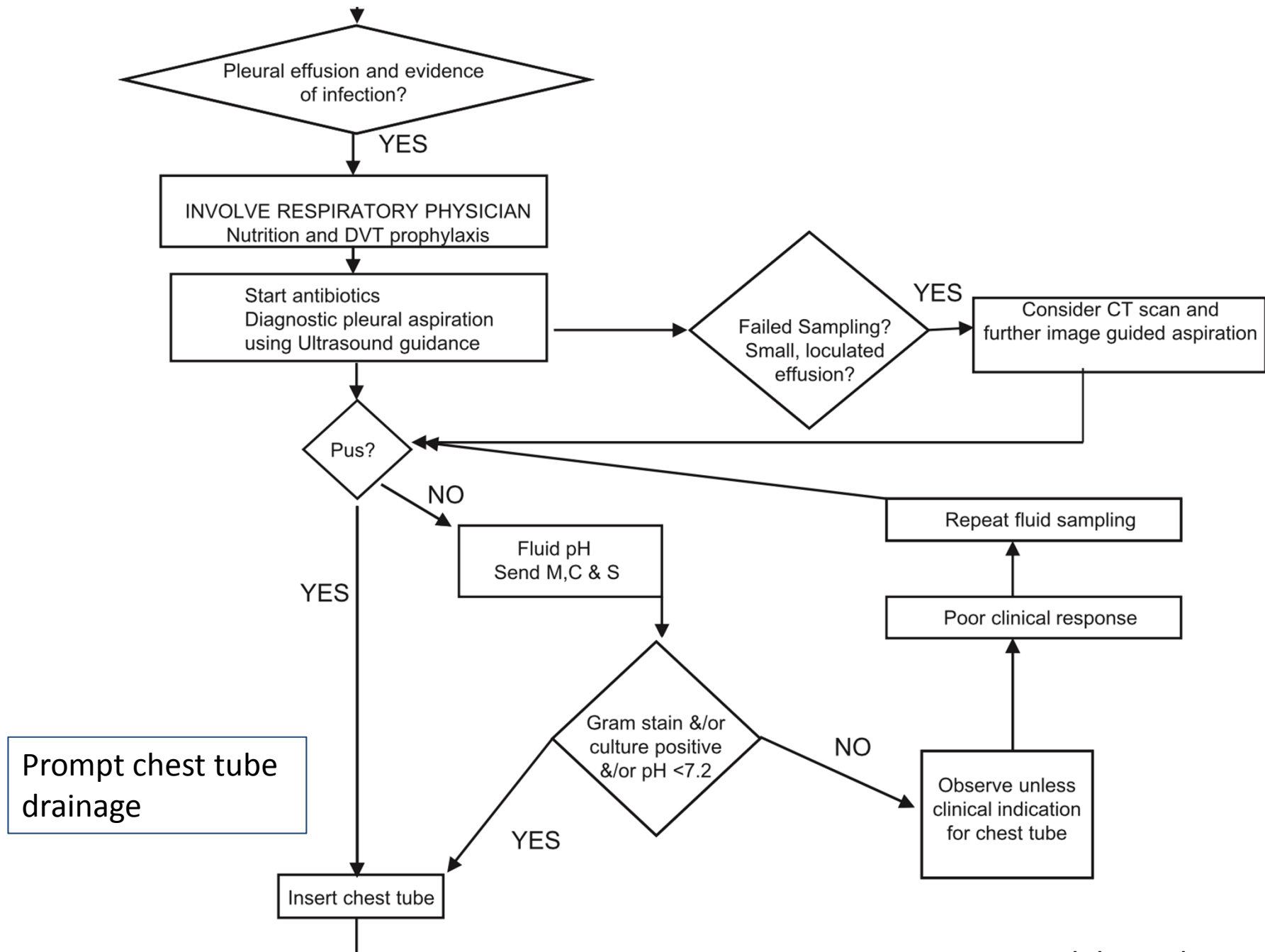
- Cell count:
 - Poly 84%, lympho 4%, other 12%
- Chemistry
 - Protein 9.4g/dL, glucose 3mg/dL, LDH 13532U/L
- Culture study
 - Ordinary bacteria: negative
 - AFB culture (effusion): pending
 - AFB culture (tissue): pending

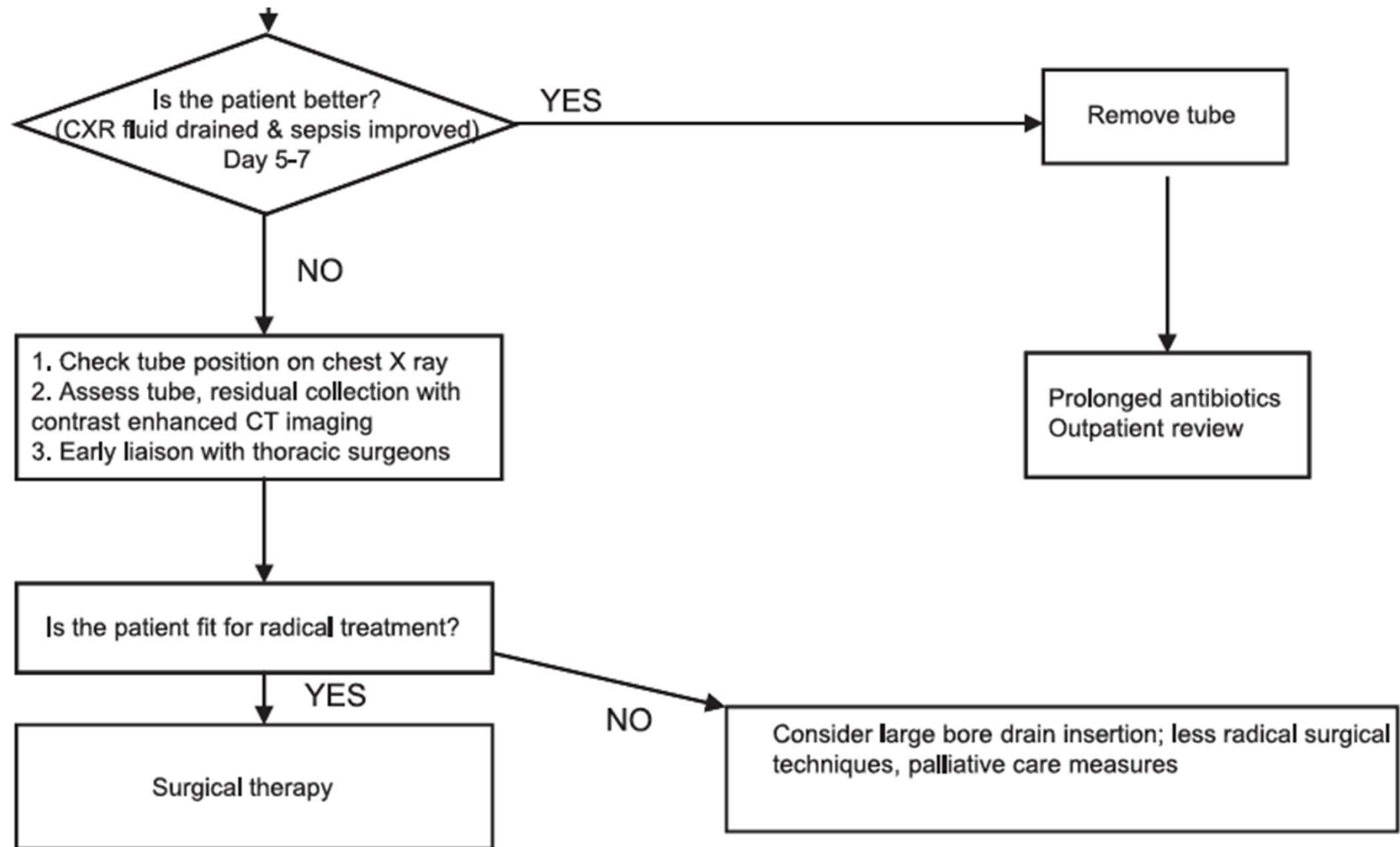




Pathology

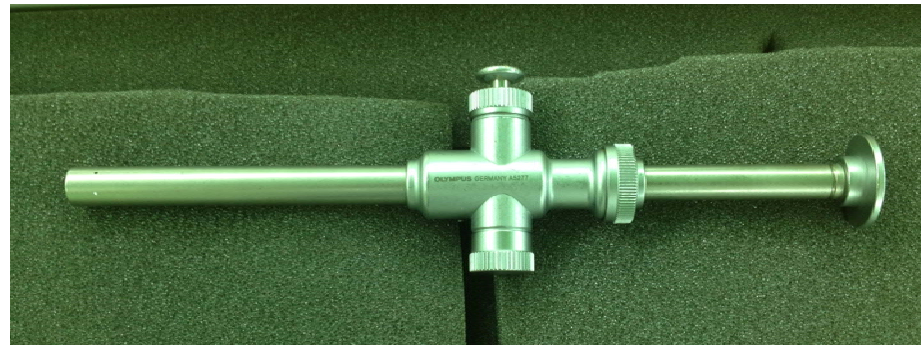
- Pleura, biopsy:
 - Pleural tissue with
 - 1) extensive necrosis
 - 2) inflammatory exudates
- Clinically consistent with empyema



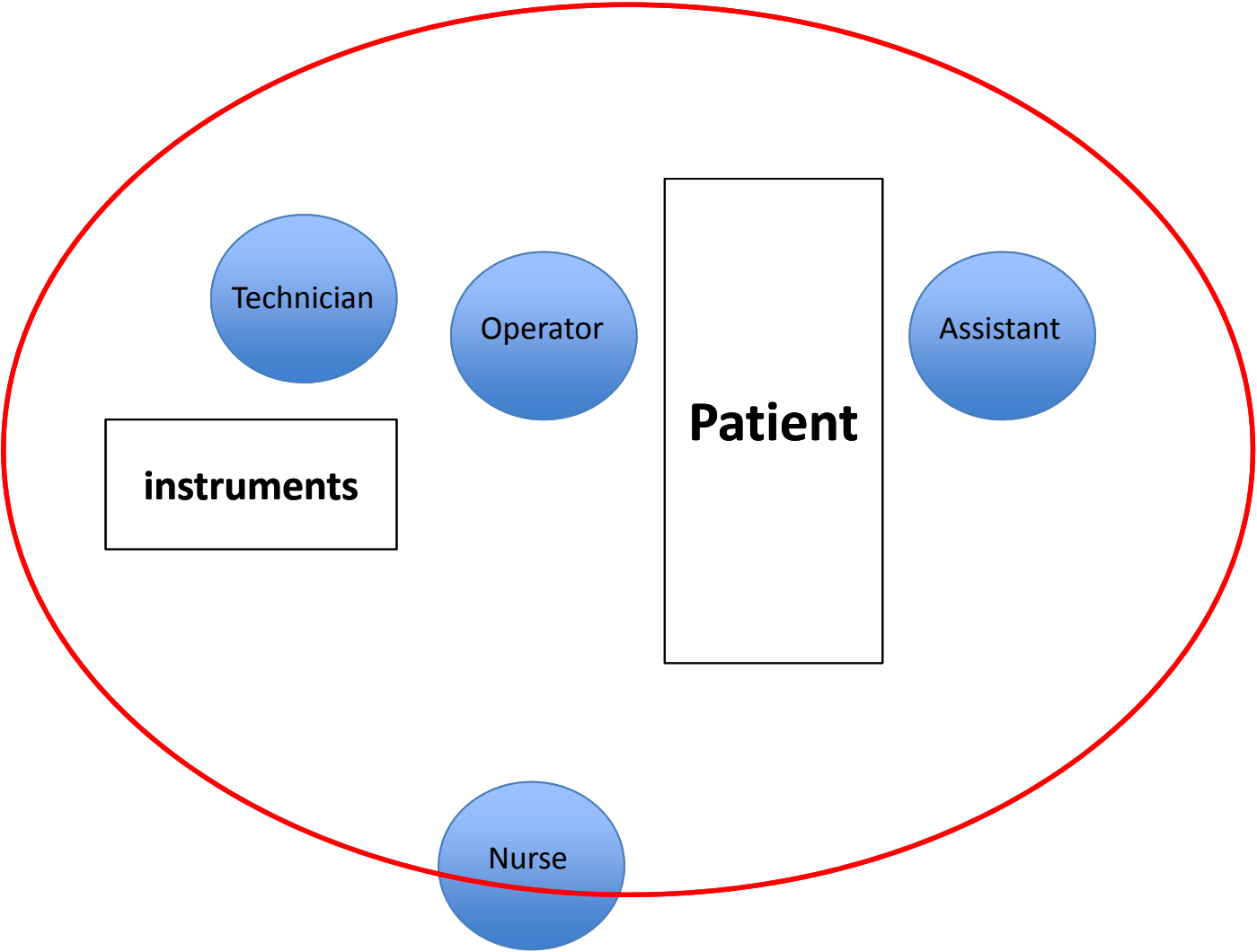


MT in SNUH

- Feb 14, 2014: 1st case in MICU for diagnosis
- Using medical peritoneoscope



Personnel



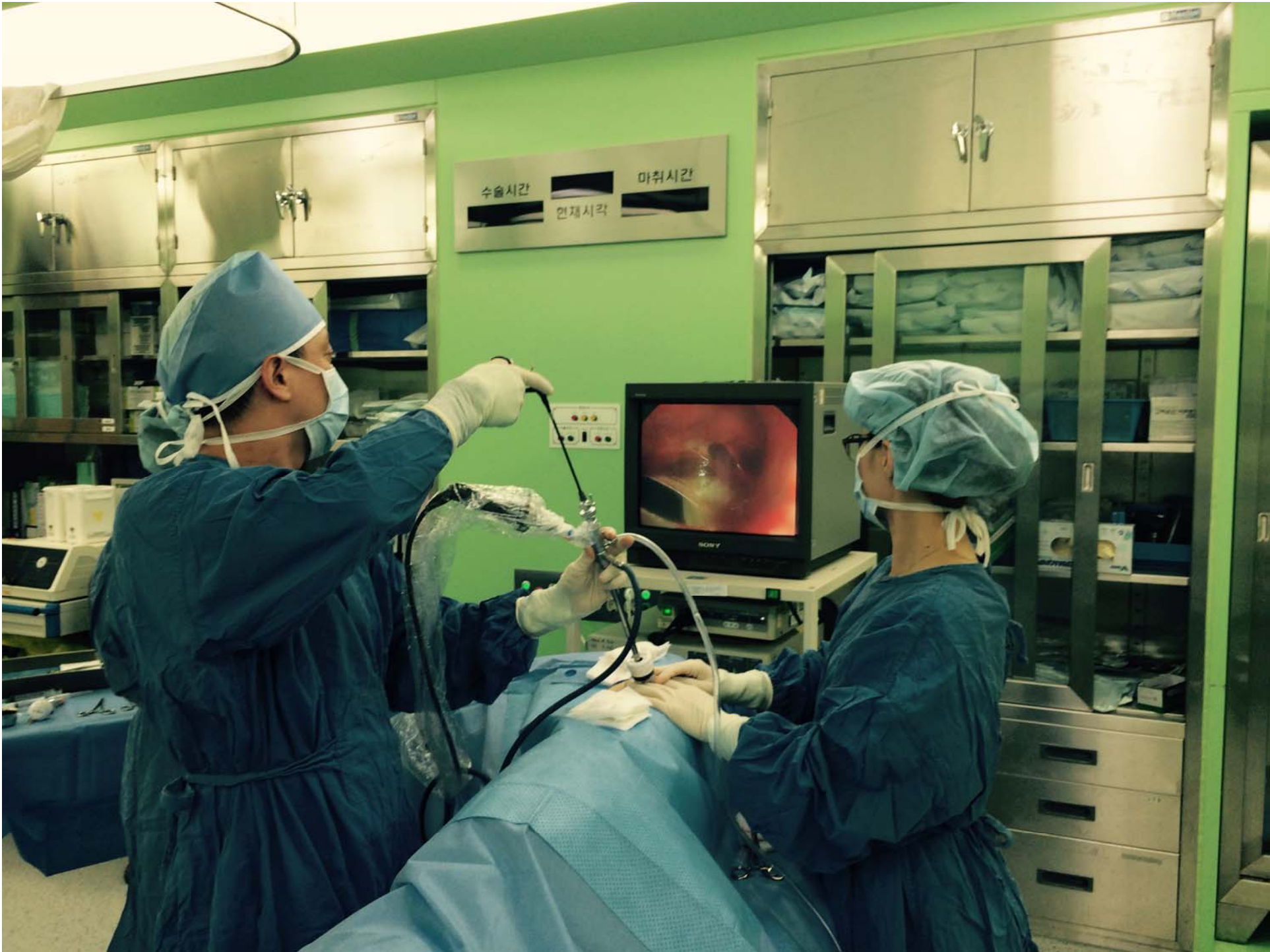
Indications

- Diagnostic
 - Pleural effusion (non-Dx exudate)
 - Pleural thickening, tumors
- Therapeutic
 - Malignant pleural effusion: pleurodesis
 - empyema

Contra-indications

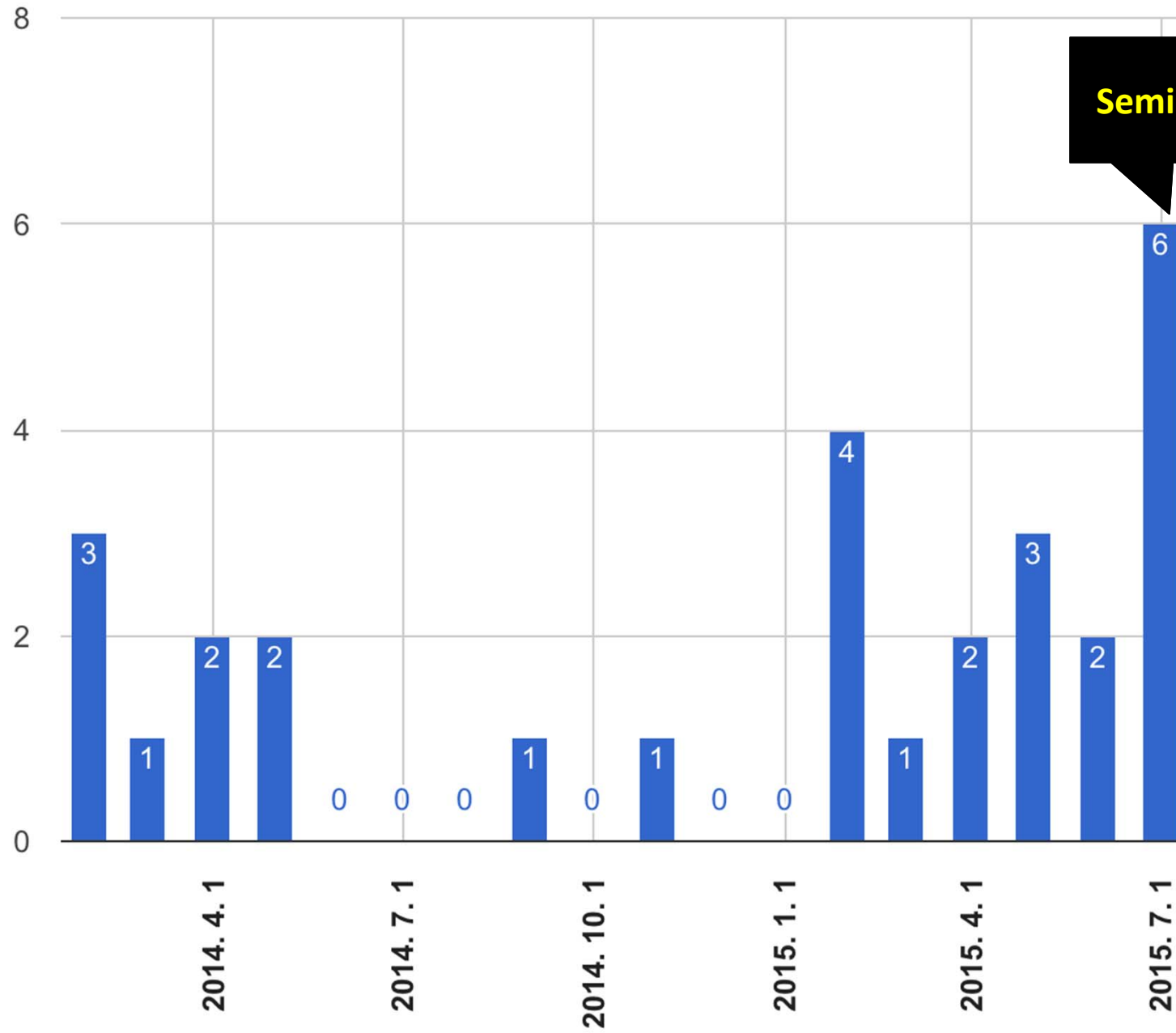
- Absolute
 - Operator inexperience
 - Uncooperative patient
 - No pleural space
 - Uncorrectable coagulopathy
 - Respiratory insufficiency
 - Advanced lung disease
- Relative
 - Significant adhesions
 - Prior VATS/ thoracotomy
 - Intractable cough
 - Overlying cellulitis







MT



Semi rigid !!

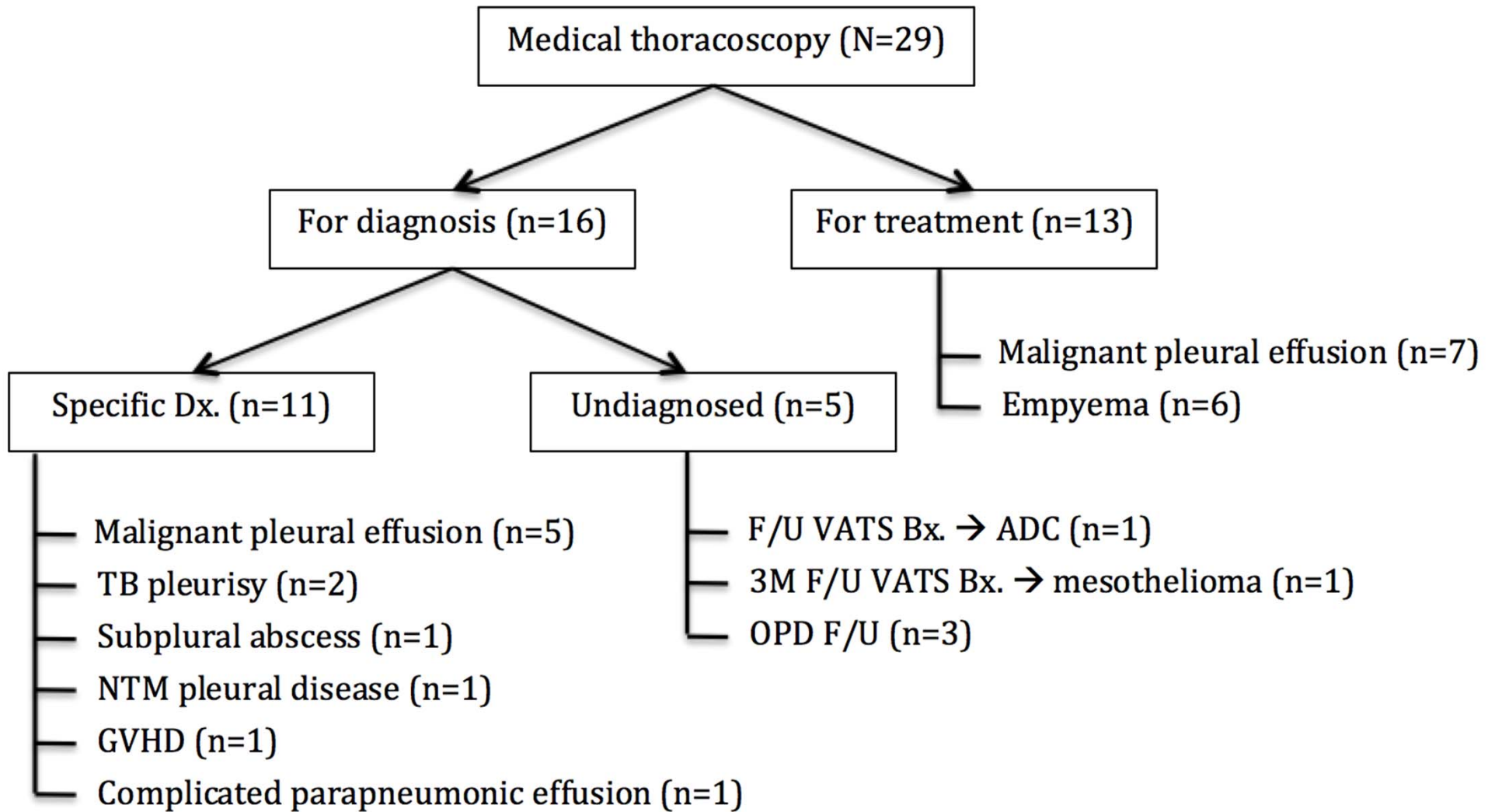


Table 1. Clinical characteristics of 29 cases

Variables	Values
Age median, years (range)	62.5 (25-85)
Male	27 (93.1%)
Reasons for medical thoracoscopy	
Diagnosis	16 (55.2%)
Treatment	13 (44.8%)
Underlying diseases for cases of treatment (n=13)	
Empyema	6 (46.2%)
Lung cancer with malignant pleural effusion	5 (38.5%)
Mesothelioma with malignant pleural effusion	1 (7.7%)
Adenoid cystic carcinoma of lung with malignant pleural effusion	1 (7.7%)

Table 2. Medical thoracoscopy procedure parameters.

Variables	Total	Dx.	Tx.
Procedure time, min (median, range)*	37 (23–86)	32 (24-60)	50 (23-84)
Sedatives			
Fentanyl, ug (median, range)	50 (50–75)	50 (50-75)	50 (50-75)
Midazolam, mg (median, range)	5 (2-15)	4 (2-15)	5 (3-10)
Chest tube drain time, day (median, range)	7 (2-30)	4 (2-17)	8 (6-30)

*Procedure time: from lidocaine injection to chest tube insertion

Complications

- Medical thoracoscopy is safe: 3272 patients
 - Subcutaneous emphysema: 0.6-1.3%
 - Empyema: 2-4%
 - Bleeding: 0.4-2.3%
 - Re-expansion edema: 2.2%
 - Air embolism: 0.2%
 - Mortality: 0.09%

Viskum et al. Poumon Coeur 1981:37;273

Viallat et al. Chest 1996:113;1387

Ribas et al. Chest 2001:119;801



Thank Your For Your Attention.



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