

2014-7-21

Case

R4 Moon Sung Woo

Yonsei University College of Medicine

Department of Internal Medicine

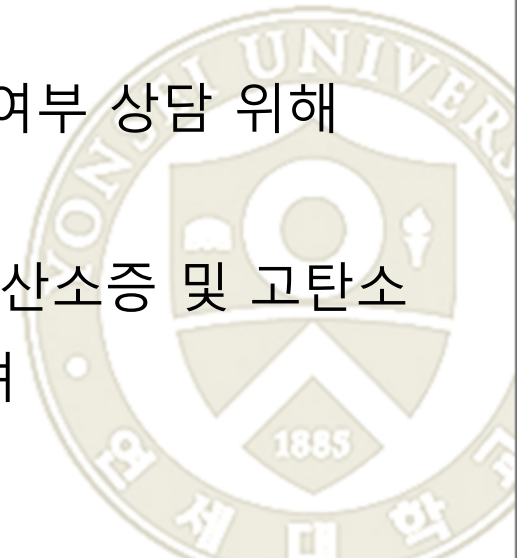
Division of Pulmonology





Case presentation

- F/38, 김O경
- Chief Complaint : dyspnea
- Breif History
 - B 전구세포림프모구성 백혈병, philadelphia염색체 양성 진단
(2011년 6월)
 - 동종 말초 혈액 줄기 세포 이식 (2011년 8월)
 - lung의 이식편대숙주병(GVHD)으로 폐이식 가능 여부 상담 위해
2013년 1월 본원 의뢰되어 이식 전 검사 시행 받음
 - 2013년 10월 22일 호흡곤란으로 타 병원 내원, 저산소증 및 고탄소
혈증 소견 지속되어 2013년 10월 30일 폐 이식 고려
위하여 본원 전원됨





- Past medical history
 - Precursor B lymphoblastic leukemia, philadelphia Chromosome positive
 - s/p allo-PBSCT (full matched sibling donor, A+)
 - GVHD (eye, skin, liver, lung)
 - Chronic kidney disease d/t immunosuppressant
- Medication
 - Imatinib mesylate (glivec) 100mg
 - tacrolimus (prograf) 1.5mg
 - Prednisolone 25mg





1) Physical examination, ROS

- SaO₂ 97% on Nasal O₂ 1L
- 170cm/38.5kg
- Dyspnea, DOE(+ / +)
- 양쪽 폐에서 악설음, 양측 하부 폐야의 호흡음은 감소

2) Lab

- WBC 9580*10³/μL, RBC 11g/dL, Plt 173*10³/μL
- BUN/Cr 31.5/1.59 mg/dL
- AST/ALT/T.bil 28/24/0.4 IU/L
- ABG pH 7.316, CO₂ 53.3mmHg, O₂ 162.8mmHg, SaO₂ 99.6%

이식전 검사 (2013년 1월)

1) PFT

	FEV1/ FVC(%)	FVC (L/sec, %)	FEV1 (L/sec, %)	DLCO (mL/mmHg/min , %)	FEF 25-75% (L/sec, %)
2012년 7월	67	1.09(27%)	0.73(23%)	10.2(57%)	0.53(15%)
2013년 1월	41	2.14(54%)	0.88(28%)	7.4(39%)	0.27(8%)





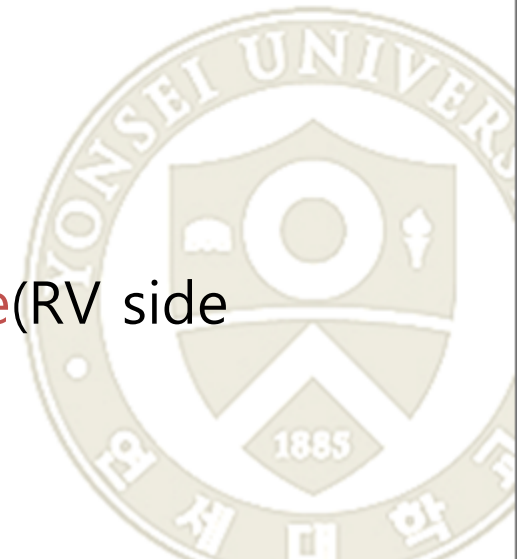
2) 6분 보행검사: 280m, SaO₂ 93% 까지 감소

3) Rt Side catheterization(13.1.23)

- Lt/Rt PA 25/11/19 mmHg
- MPA 30/16/20 mmHg
- RVSP 29 mmHg
- RAP 5/5/4 mmHg
- Cardiac output 3.8L/min

4) TTE(13.11.1)

- EF 59%
- No RWMA
- Loculated pericardial effusion at Rt side(RV side 2.1cm, RA side 1.1cm)
- RVSP 40mmHg





이식전 검사 (2013년 1월)

5) PRA Identification report

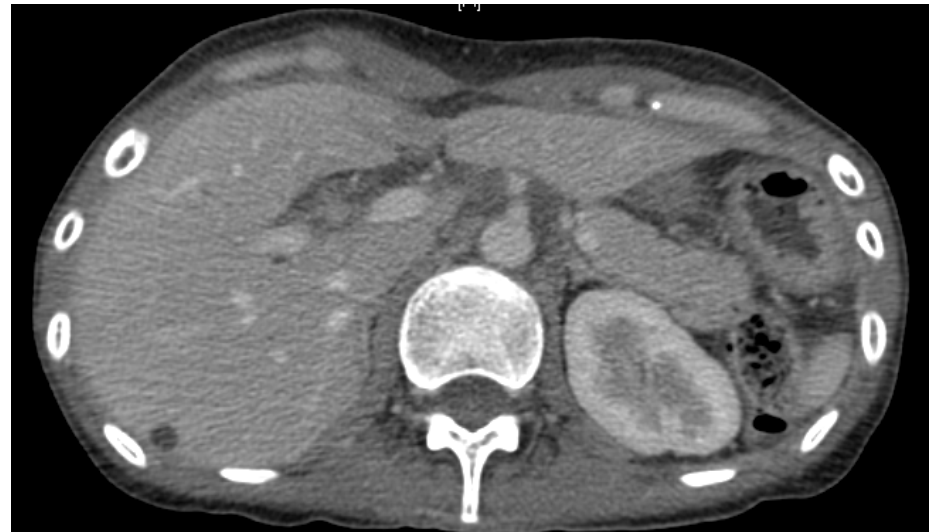
Class I & II : 0%

6) A, Rh +

CMV PCR +

7) APCT

Periportal tracking
from hepatitis.





이식전 검사 (2013년 1월)

8) Chest imaging





Progress after admission

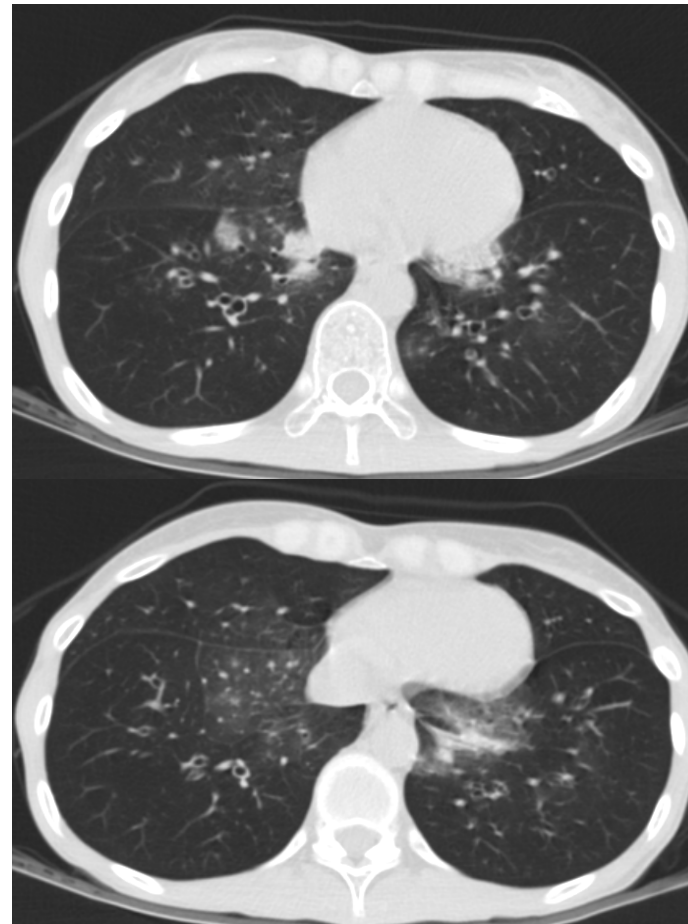
- HOD # 2(13.10.29); Intubation
 - Steroid & antibiotics & antifungal agent
- HOD # 11(13.11.9); Extubation
- HOD # 12(13.11.10); Re-intubation d/t muscle fatigue
- HOD # 22(13.11.20); Tracheostomy
- HOD # 26(13.11.24); Home ventilator





Imaging studies

2013.10.22



2013.10.31 (HOD#2)

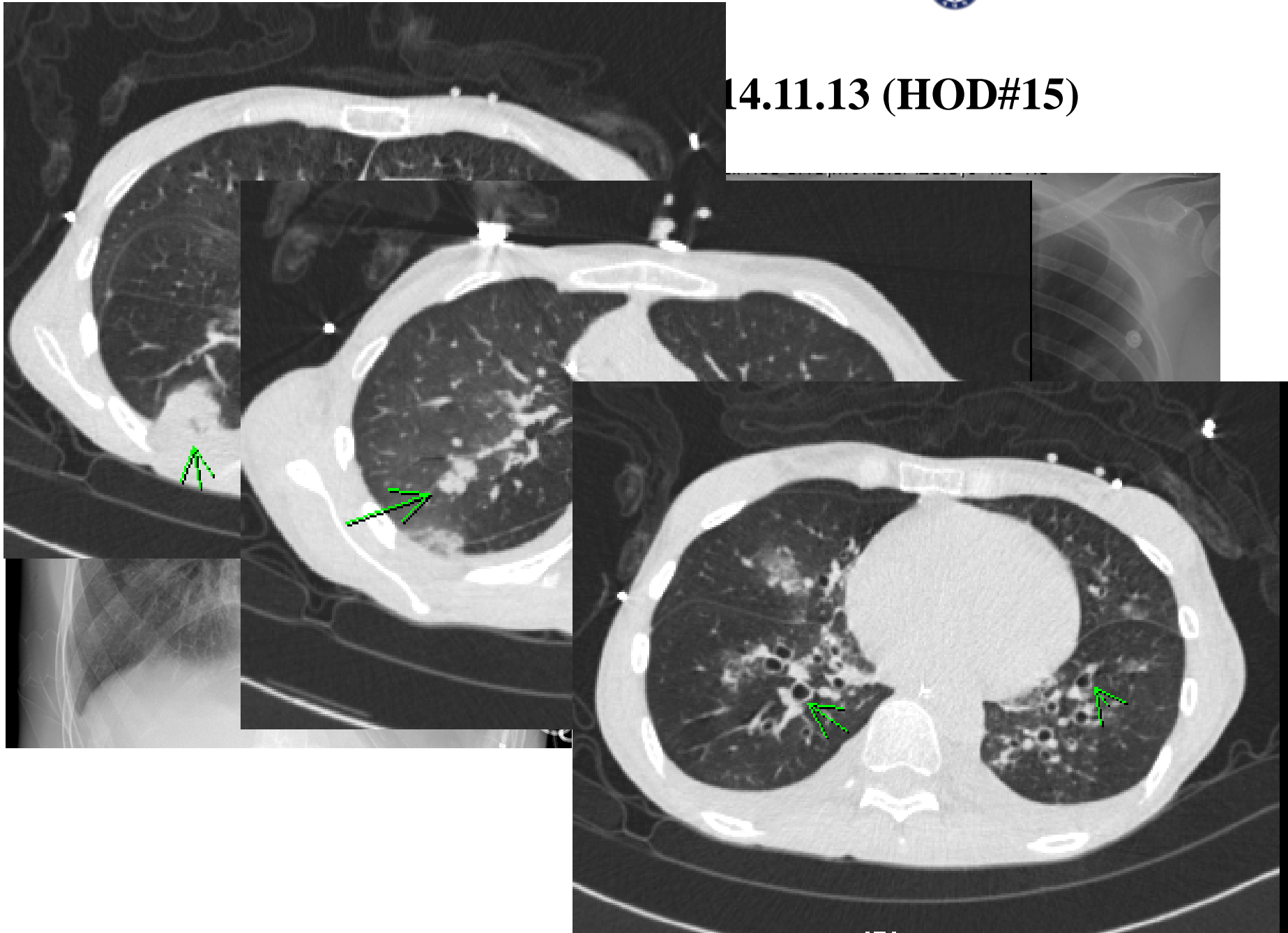


Intubation & ICU Care



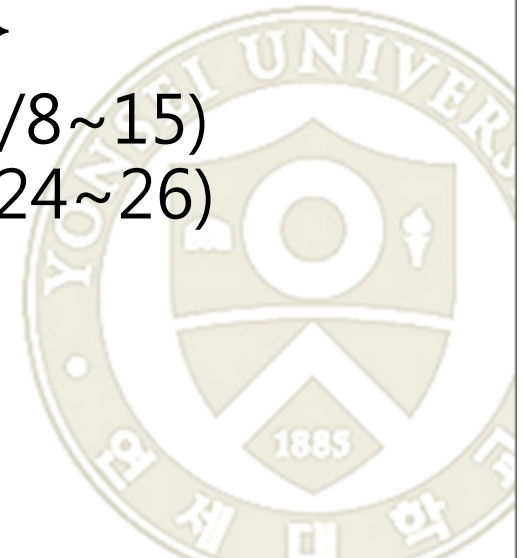


14.11.13 (HOD#15)





- Antibiotics & antifungal use
 - ambisome(10/31~)+colistin nebulizer(11/21~)+prepenem(11/21~)+minocycline, Rifampin(11/21~)
- Steroid Use
 - Methylprednisolone 31.25mg (10/29~11/1) → Hydrocortisone 200mg (11/2~4) → 100mg (11/5~7) → 100mg bid (11/8~15) → 150mg(11/16~23) → 100mg (11/24~26) → Prednisolone 10mg (11/27~)



Bilateral Lung transplantation(2013.12.6, HOD 38)

- Diagnosis : Lung GVHD (brochiolitis obliterance)
- Donor

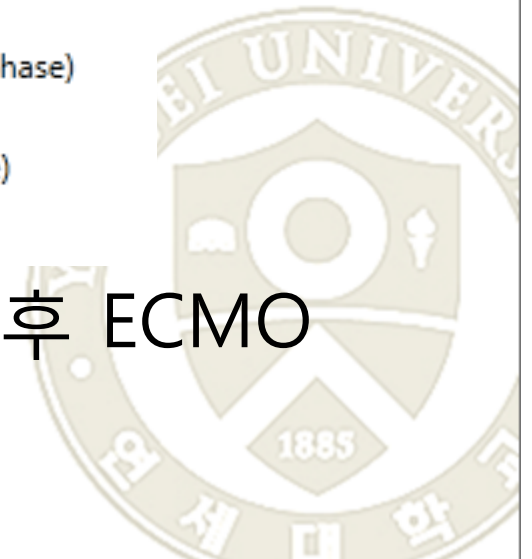
– M/51 / A+, Rh + / 171cm / 63.6kg/ Smoking
15PYRs / P/F ratio 445.6/1.0

– Donor HLA ; A 29/33, B 61/51, DR 7/14

– HLA cross match

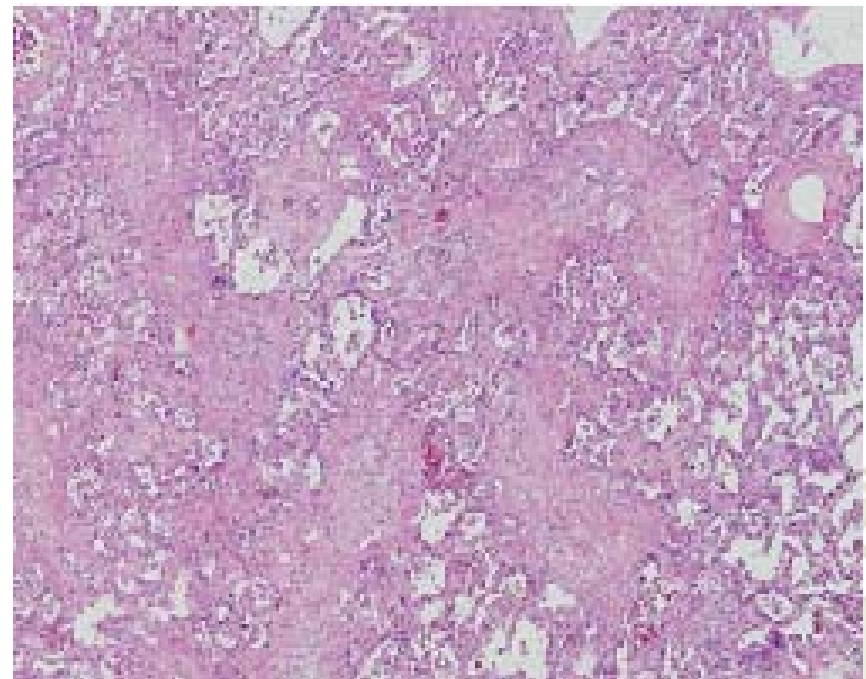
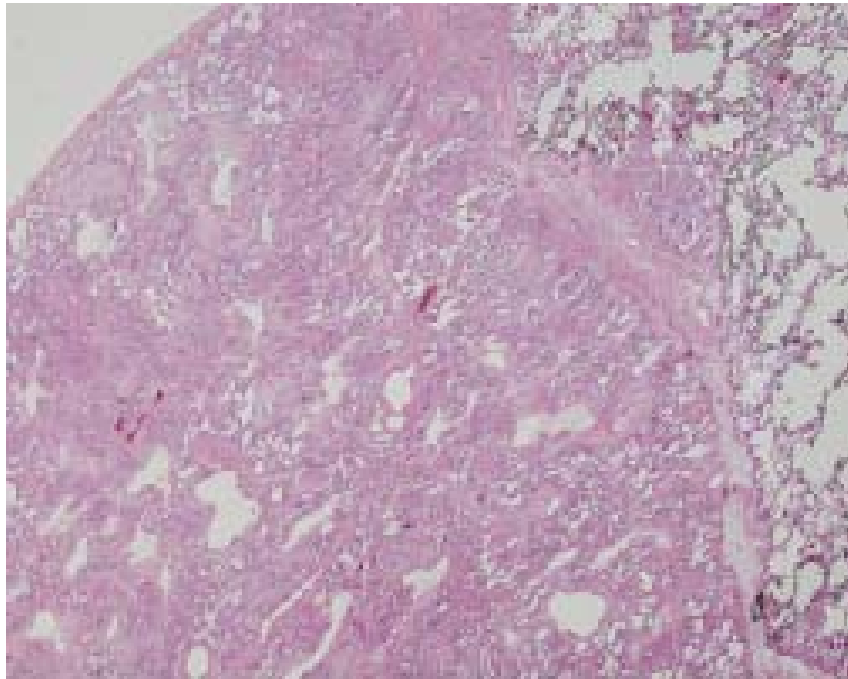
T cell crossmatch(NIH phase)	1:1 positive	(NIH phase)
T cell crossmatch(Time long phase)	1:1 positive	(Time long phase)
T cell crossmatch(AHG phase)	1:1 positive	(AHG phase)
B cell crossmatch(warm phase)	Negative	(warm phase)
B cell crossmatch(cold phase)	Negative	(cold phase)

- Op 시 femoral VA ECMO 사용, 수술후 ECMO 제거후 ICU 이동





Surgical Pathology





Surgical Pathology

- Recipient lung, bilateral:
 - 1. Uniform thickening of alveolar septa by interstitial fibrosis, suggestive of nonspecific interstitial pneumonia, fibrosing type
 - 2. A few foci of peribronchiolar fibrosis, chronic inflammatory cell infiltrates, and obliterative scar-like lesions, suggestive of constrictive bronchiolitis obliterans
 - 3. Organizing pneumonia, predominant in right lower lobe
 - 4. D-PAS and GMS special stainings reveal no micro-organisms.
- Donor right lung: Bronchus and large vessels with no pathological diagnosis



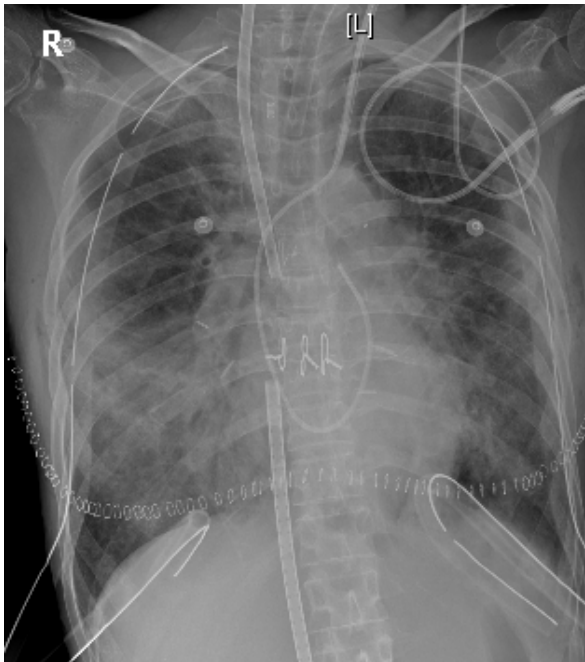


Progress after lung transplant

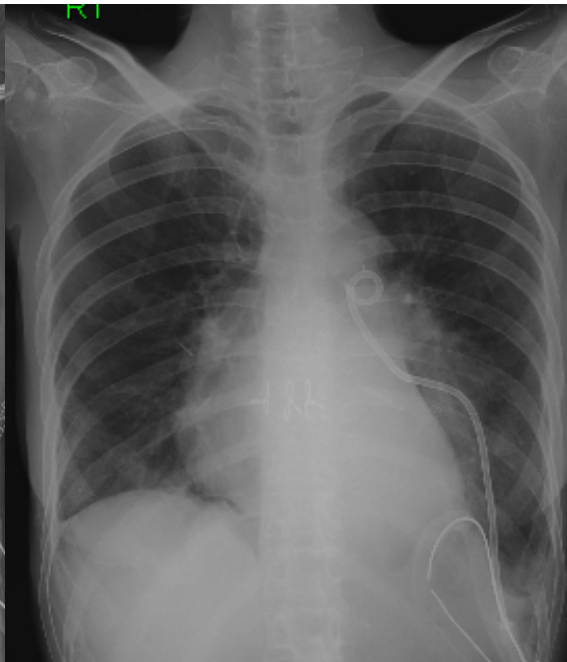
- POD # 12(13.12.18); ventilator full time weaning
- POD # 14(13.12.20); GW transfer
- POD # 25(13.12.31); seal off
- POD # 31(14.1.5); ambulation
- POD # 49(14.1.23); TBLB
- POD # 53(14.1.27); discharge from hospital



Postop. Imaging study



- POD 0



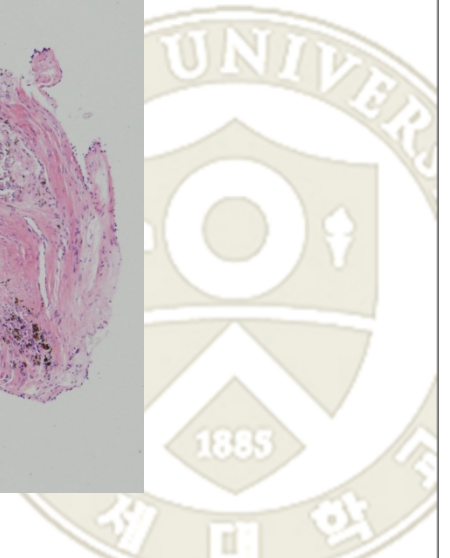
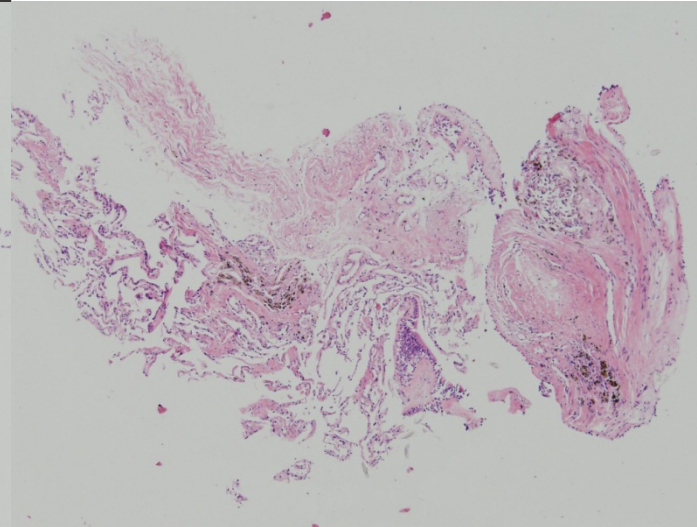
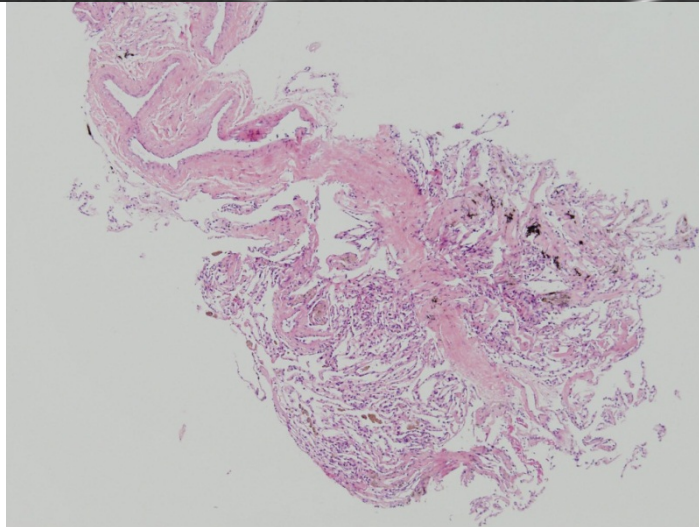
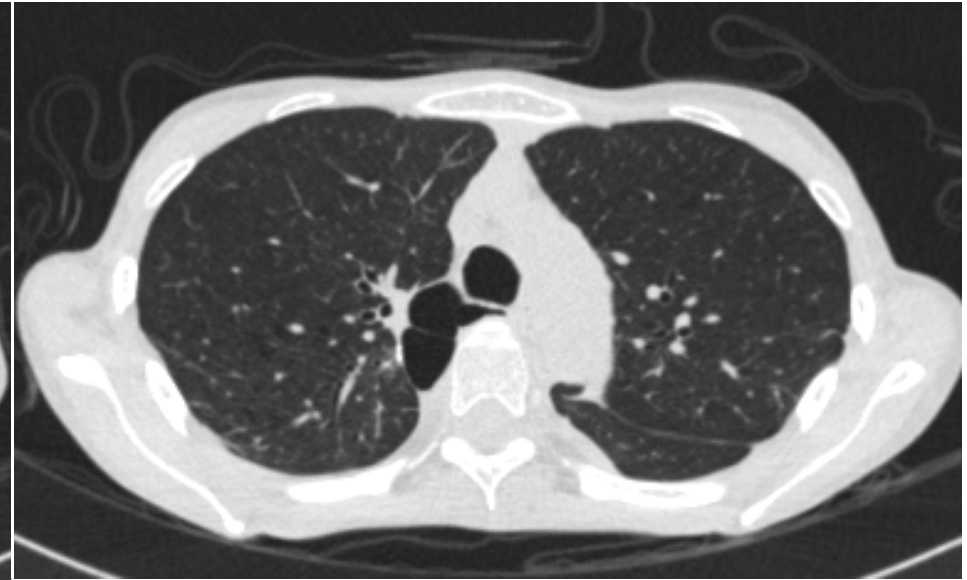
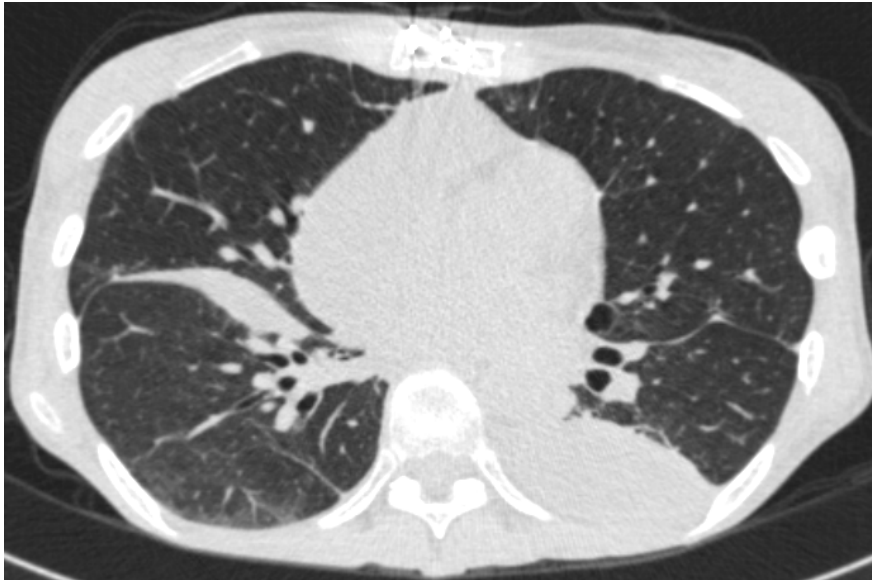
- POD 31



- POD 53



POD # 48 / 2014년 1월





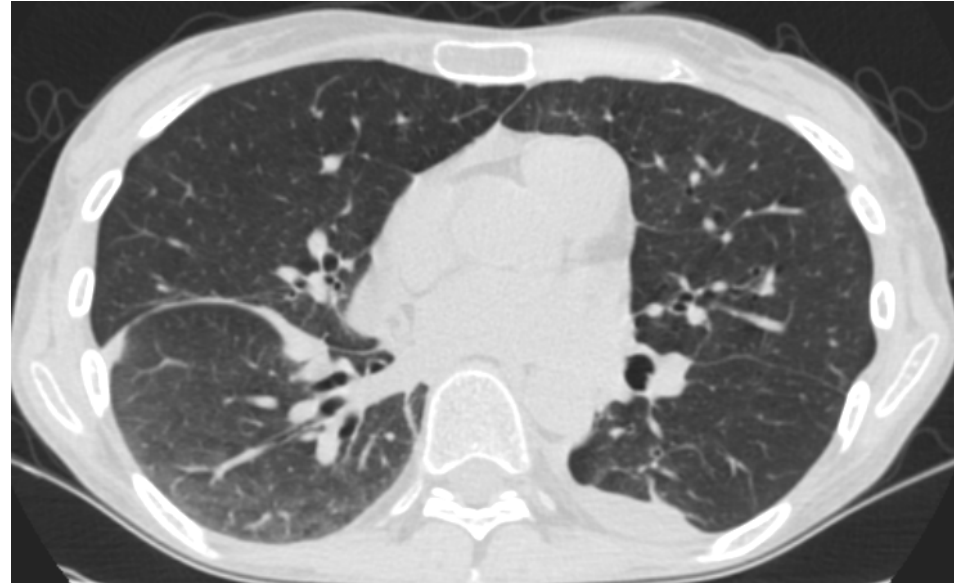
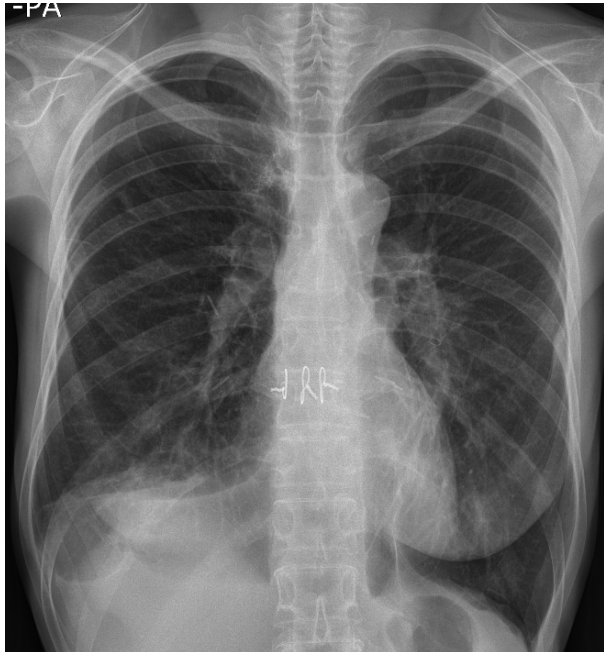
Progress after lung transplant

- Discharge medication
 - 면역억제제
 - Prednisolon 5mg Bid / Mycophenolate mofetil 500mg Bid / tacrolimus 0.25mg Bid
 - 예방 항생제
 - TMP/SMX 2T daily / itraconazole 200mg Bid / valganciclovir 900mg qd





POD #117 / 2014년 4월

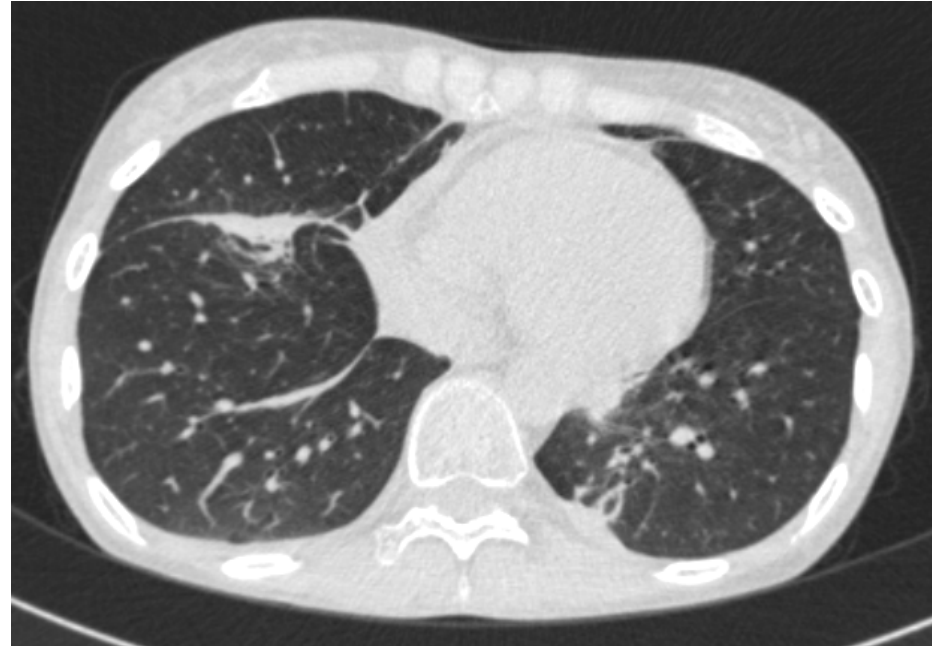
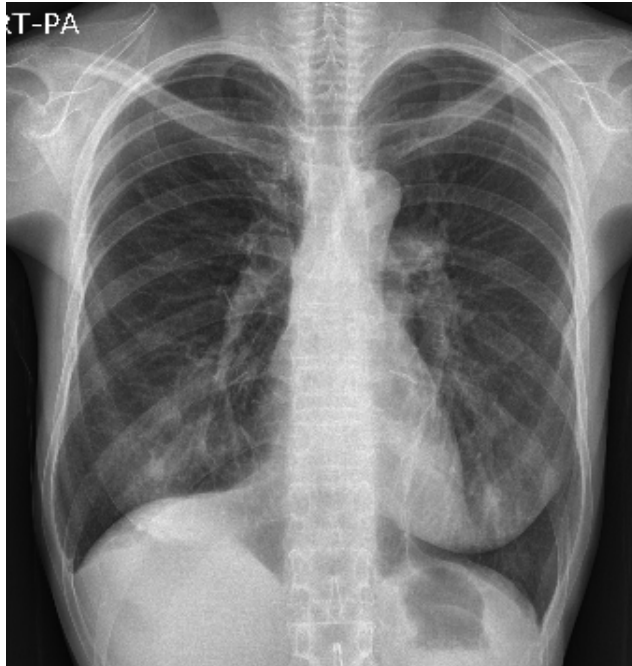


- Sx ; 가슴 불편감(+), Tolerable w/o O2 inhalation
- TBLB (RLL Basal lobe *8)
 - No evidence of acute rejection (A0)
- 6분 보행검사 : 350m, SaO 100%
- Pleural effusion drainage done, r/o Reactive fluid





POD #193 2014년 6월



- Sx ; 가슴 불편감(+), Tolerable w/o O₂ inhalation
- 6분 보행검사 : 430m, SaO 100%
- TBLB (RLL Basal lobe *8)
 - No evidence of acute rejection (A0)





PFT

	FEV1/ FVC(%)	FVC (L/sec, %)	FEV1 (L/sec, %)	DLCO(mL/m mHg/min, %)	FEF 25- 75% (L/sec, %)
2012년 7월	67	1.09(27%)	0.73(23%)	10.2(57%)	0.53(15%)
2013년 1월	41	2.14(54%)	0.88(28%)	7.4(39%)	0.27(8%)
2014년 1월	80	1.82(46%)	1.46(47%)	8.5(48%)	1.55(45%)
2014년 2월	75	2.44(62%)	1.83(59%)	12.2(68%)	1.41(41%)
2014년 6월	75	2.44(62%)	1.83(59%)	10.0(53%)	1.50(44%)

폐이식
후





Summary

- Bronchiolitis Obliterance after PBSCT
- Bilateral Lung transplantation
- No evidence of acute rejection and tolerable without complication





Thank you for your attention!

