

## 花蓮慈濟醫院影像診療研討會

日期：2026年05月15日  
時間：08:00 - 09:00  
地點：花蓮慈濟醫院大愛七樓702教室

時間	題目	主講人
08:00-09:00	個案討論	陳宇翔

### Patient Profile

# 楊0龍 61-year-old male 建築工人

# **Chief complaint** : progressed dyspnea for 1 month

# **PHx**: nil

# **Present illness**: dyspnea, exaggerated after walking and relieve after rest, Mild cough was accompanied

Alcohol: 1 bottle(300c.c.) of rice wine daily for 40 years (quit, started since 18)

Betel nut: 15 betel nuts per day for 40 years (quit, started since 18)

Smoking: 40 pack-year (quit in recently 6 months, started since 18)

#**TOCC**: dive as his habit for about 30 years

# No family history

### Clinical Course

09/06 came to 東基. **progressive of dyspnea sensation**

CXR showed **interstitial lung** in bilateral lung, diffuse alveolar pattern

FVC in 東基.

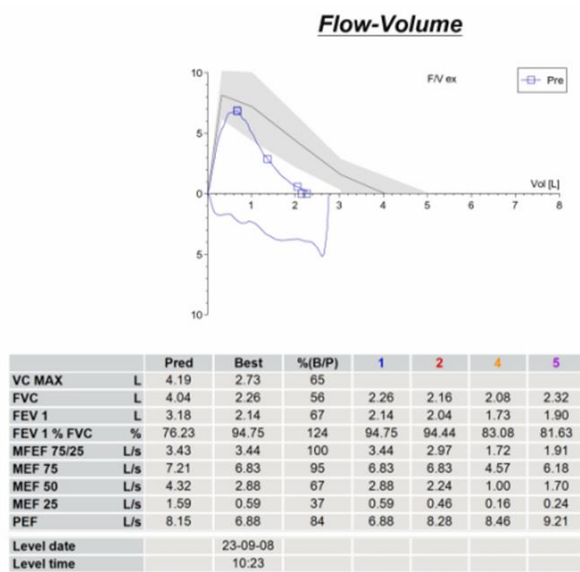
09/25 Chest CT

Showed air-bronchogram

2023/09/06 CXR(東基)



2023/09/08 FVC (東基)



2023/10/05 CXR



**10/05**

Came to Dr.楊 OPD

Admitted to CM. general cancer survey showed high levels of CEA(64.4ng/ml), SCC(1.7ng/ml), CA125(287.9U/ml), and CA19-9(61.8U/ml)

Sheco 顆粒劑 (Bromhexine) 8mg/gm,1gm/pk

PO 1 QID

Sodicon 15mg/tab (Dextromethorphan)

PO 1 QID

	1121006	CEA	64.4	ng/mL	0	3.0
		B-HCG	2.9	mIU/mL		
		PSA	0.4	ng/mL		4.0
		SCC	1.7	ng/mL		1.5
		CA 125	287.9	U/mL		35.0
		CA 19-9	61.8	U/mL		35.0

EBUS-TBLB(endobronchial ultrasound-guided transbronchial lung biopsy) over RB6c

2023/10/05 EBUS

VOCAL CORDS: symmetry and movable.

TRACHEA: straight and intact mucosa.

CARINA: sharp angled and movable.

BRONCHIAL TREES: no visible endobronchial lesions over bilateral bronchial trees.

### 10/06

Contrasted chest to abdomen CT was done, found desaturation under room air and needed HFNC with high oxygen flow to maintain his saturation.

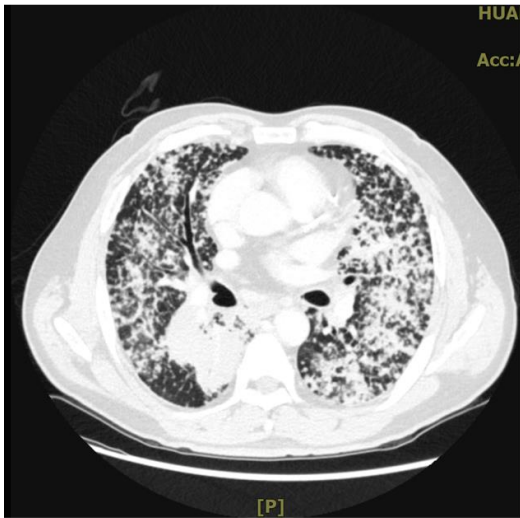
Giotrif (Afatinib) 40mg/tab ST

Decan 針劑 (Dexamethasone) 4mg/2ml/amp Q8H

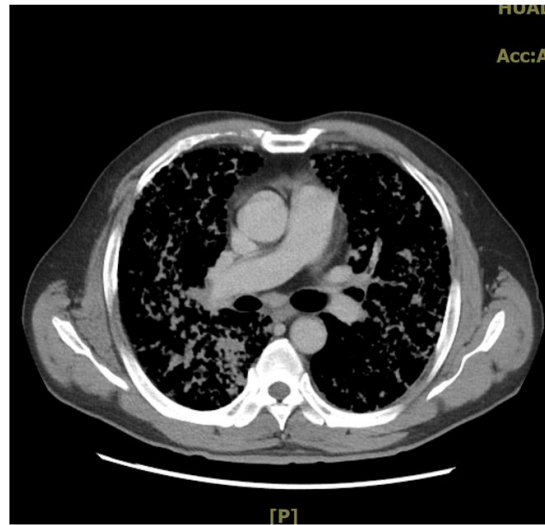
檢體名稱	報告日期	檢驗項目	檢驗報告	單位	標準(低)	標準(高)
Blood		Blood Gas				
	1121005	pH	7.377		7.35	7.45
		pCO2	48.9	mmHg	35	45
		pO2	35.0	mmHg	80	95
		HCO3	28.1	mmol/L	22	26
		TCO2	29.6	mmol/L	23	27
		ABE	1.4	mmol/L	-3.3	2.3
		BEcf	2.9	mmol/L		
		SBC	25.8	mmol/L	22	26
		O2 sat.	65.9	%	95	98

2023/10/06 CT

Air-bronchogram, consolidation



Slightly enlarge subcarinal lymph node



10/09-10/12

1. his oxygen demand has gradually tapered down to O2 mask 10L/min 35%
2. arranged a brain MRI and PET(positron emission tomography) scan for staging
3. BAL(bronchial alveolar lavage) culture reported Streptococcus mitis(finish on 10/11, no infection sign)

CURAM 1gm/tab(Amoxicillin 875mg & Clavulanic Acid 125mg) Q12H

檢體名稱	報告日期	檢驗項目	檢驗報告	單位	標準(低)	標準(高)
Paraffin ti	1121016	EGFR	A point mutatio			not dete

Result(10/11)

A point mutation was detected at exon 21 (L858R) of EGFR gene in this specimen.

2023/10/05 CXR



2023/10/09 CXR



2023/10/09

Surgical pathology Level IV

Grossly, they are grayish and elastic.

All for section. Jar 0

Microscopically, it shows adenocarcinoma in acinar and cribriform pattern (tumor 15%) with areas of necrosis.

Immunohistochemical stain shows CK7 (+), TTF-1 (+), CK20 (-), CDX2 (-) in tumor cells.

2023/10/11 Brain MRI

**Findings:**

- = **Relative slow flow at left branches of MCA.**
- = **Normal signal intensity over brain parenchyma.**
- = **The sulci and ventricles seems not widening.**
- = **T2\*: no microbleed.**
- = **Atherosclerotic change of bilateral carotid arteries and vertebral arteries.**

**Impression:**

**No apparent image evidence of intracranial metastasis.**

2023/10/12 PET

Arranged a brain MRI and PET scan for staging, which revealed no brain but regional lymph node and lung to-lung metastasis, suspected cT4N2M1a, stage IVA(AJCC 8th)



2023/10/11 PET

T4	Tumor >7 cm or tumor invading: mediastinum, diaphragm, heart, great vessels, recurrent laryngeal nerve, carina, trachea, esophagus, spine; or tumor nodule(s) in a different ipsilateral lobe	T4 >7 T4 <i>Inv</i>  T4 <i>Ipsi Nod</i>
N2	Metastasis in ipsilateral mediastinal/subcarinal nodes	
M1a	Malignant pleural/pericardial effusion <sup>c</sup> or pleural /pericardial nodules	M1a <i>Pl Dissem</i>

**10/13-10/14**

Able to lie down and sleep without severe dyspnea => Under 10L/min 35% mask

**10/15-10/17**

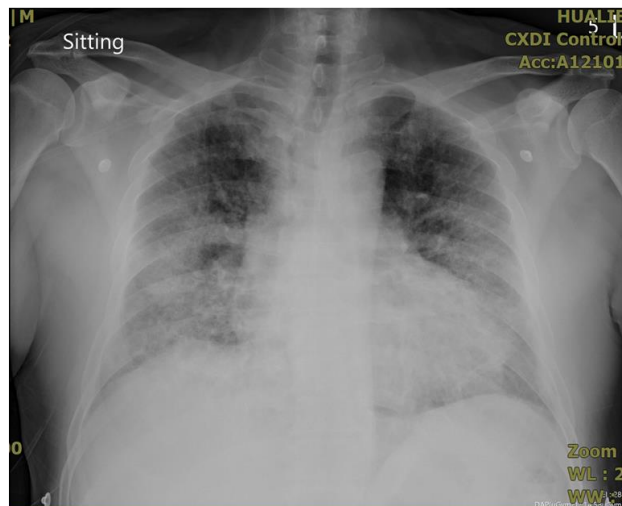
1. dyspnea has gradually enhanced, and the oxygen device had been tapered to nasal cannula 3L/min on 10/15
2. started to suffer from persistent coughing and effort breathing
3. more yellowish thick sputum was found since 10/17 evening
4. CXR showed RLL new incomplete consolidation. For highly suspected new hospital-acquired Pneumonia

Tapimycin 4g & 0.5g/vial (Piperacillin & Tazobactam) Q6H

2023/10/16 CXR



2023/10/17 CXR



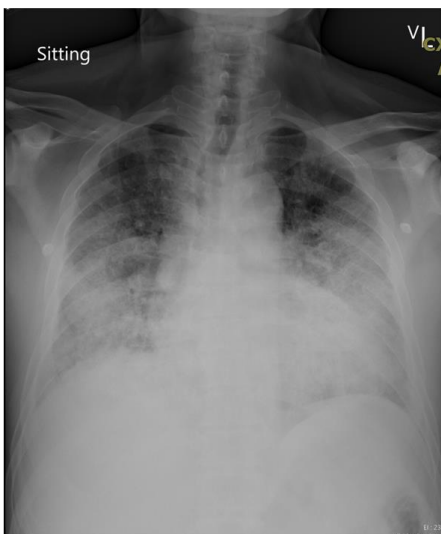
2023/10/09 CXR



### 10/18-10/23

1. Highly suspected Legionnaires' disease  
10/18 Change to Cravit 針劑 250mg/50ml/vial(Levofloxacin) QD
2. Progressing effort breathing and desaturation were found  
HFNC has been applied since the 10/18 night
3. Transferred to MICU for closely monitoring on 10/23
4. Due to recent steroid use, PJP and CMV infection could not be ruled out  
10/23 Gancicure Lyo 500mg/vial (Ganciclovir) Q12H  
10/23 Sevotrim 400/80mg/5ml/amp(Sulfamethoxazole & Trimet) Q8H

2023/10/20 CXR



2023/10/17 CXR



### 10/23 in MICU

1. under NRM, his saturation is only 90%  
Intubation, PEEP/PS 11/24 and FiO2 100%
2. desaturation with bradycardia

3. PEA(pulseless electrical activity)

CPR started with a Bosmin injection

4. ROSC(Return of Spontaneous Circulation)

Lab data (10/23)

15:43

檢體名稱	報告日期	檢驗項目	檢驗報告	單位	標準(低)	標準(高)
Blood		Blood Gas				
	1121023	pH	7.453		7.35	7.45
		pCO2	41.3	mmHg	35	45
		pO2	68.3	mmHg	80	95
		HCO3	28.2	mmol/L	22	26
		TCO2	29.5	mmol/L	23	27
		ABE	4.4	mmol/L	-3.3	2.3
		BEecf	4.3	mmol/L		
		SBC	27.5	mmol/L	22	26
		O2 sat.	94.5	%	95	98

18:49

檢體名稱	報告日期	檢驗項目	檢驗報告	單位	標準(低)	標準(高)
Blood	1121023	Na	136	mmol/L	136	145
		K	3.7	mmol/L	3.5	5.1
		Cl	96	mmol/L	98	107
		hs Tn.I	37.7	pg/mL		<17.5
		PCT	0.59	ng/mL		0.50
		Mg	2.1	mg/dL	1.9	2.7

Lab data (10/23)

18:53

檢體名稱	報告日期	檢驗項目	檢驗報告	單位	標準(低)	標準(高)
Blood		Blood Gas				
	1121023	pH	6.941		7.35	7.45
		pCO2	101.8	mmHg	35	45
		pO2	39.8	mmHg	80	95
		HCO3	21.4	mmol/L	22	26
		TCO2	24.6	mmol/L	23	27
		ABE	-16.3	mmol/L	-3.3	2.3
		BEecf	-10.8	mmol/L		
		SBC	13.8	mmol/L	22	26
		O2 sat.	39.4	%	95	98
		Ca ionized		mmol/L	1.12	1.32
	1121023	Ca ionized	1.25	mmol/L	1.12	1.32
		Ca i-pH7.4		mmol/L	1.12	1.32

## Lab data (10/23)

檢體名稱	報告日期	檢驗項目	檢驗報告	單位	標準(低)	標準(高)
Blood		Blood Gas				
	1121023	pH	6.795		7.35	7.45
		pCO2	115.1	mmHg	35	45
		pO2	33.1	mmHg	80	95
		HCO3	17.3	mmol/L	22	26
		TCO2	20.9	mmol/L	23	27
		ABE	-23.9	mmol/L	-3.3	2.3
		BEecf	-17.3	mmol/L		
		SBC	10.0	mmol/L	22	26
		O2 sat.	21.2	%	95	98

19:23

檢體名稱	報告日期	檢驗項目	檢驗報告	單位	標準(低)	標準(高)
Blood		Blood Gas				
	1121023	pH	6.890		7.35	7.45
		pCO2	88.1	mmHg	35	45
		pO2	52.9	mmHg	80	95
		HCO3	16.5	mmol/L	22	26
		TCO2	19.2	mmol/L	23	27
		ABE	-21.1	mmol/L	-3.3	2.3
		BEecf	-16.6	mmol/L		
		SBC	11.0	mmol/L	22	26
		O2 sat.	53.5	%	95	98

22:37

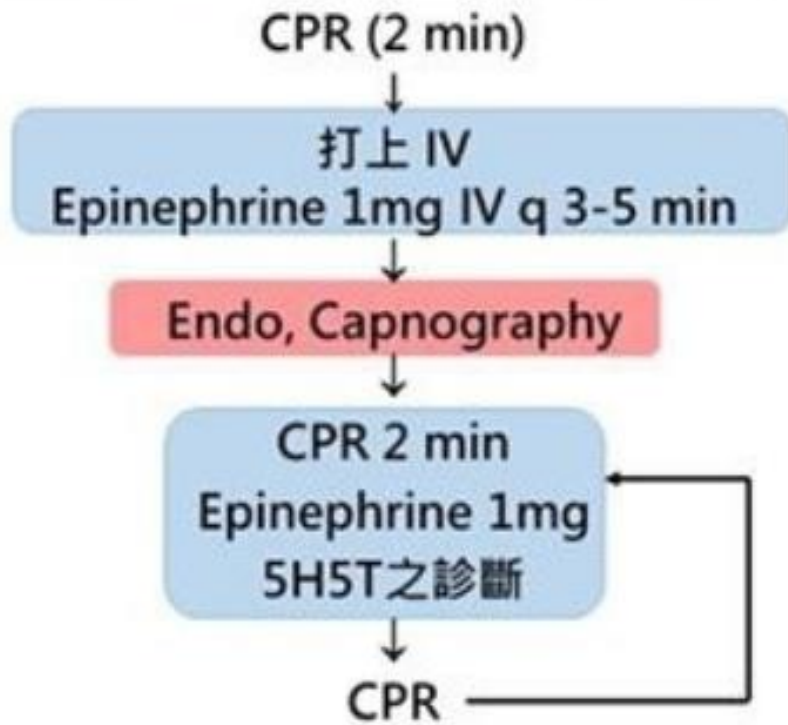
2023/10/23 CXR



2023/10/20 CXR



## PEA/Asystole之治療流程



f 臨床筆記

10/24

The patient passed away at 12:20 p.m. on October 24, 2023.

### Final diagnosis

Lung adenocarcinoma with bilateral lung multiple metastasis, cT4N2M1a, stage IVA(AJCC 8th)