



연구 아이디어 찾기

2024.02.03

가톨릭 의대 여의도성모병원

임정욱

연구를 하게 되는 이유

-환자 진료에 기여

-학술적인 교류

-개인적인 관심

-학회 발표

-승진 또는 임용

-etc

구체적으로 어떤 내용을
봐야 할까요?

자네도 이제 스텝이야.
이제는 혼자 연구 아이디어
내보게



교수님 환자
가 안 좋다고 합
니다!


PDF 파일만 열면
누가 나를 부르네.
신기 하네 ㅎㅎㅎ

☎ 자기야
애기 열난데.
빨리 와.

환자가 좋아져서
다행이야.
이제 논문 좀 써
볼까

이렇다 할 아이디어
도 없고 고민이네.
적성에 안 맞는 것
은 아닐까.



A middle-aged man with a balding head, wearing a white lab coat over a grey shirt and tie, is talking on a white corded telephone. He is holding a white medical device in his left hand. The background is a white brick wall. Two yellow speech bubbles are overlaid on the image, containing Korean text.

에잇, 안되겠다.
자리 알아보러
메X게이트나 들
어가 봐야지

여보세요. 위내
시경, 초음파 다
가능한데, 얼마
주시나요?

젊은 연구자들이 겪는 어려움

- 호흡기내과 특성 상 중환을 많이 보게 되어 진료와 연구의 균형을 맞추기 어려운 점.
- 가정과 병원일 간의 균형.
- 연구 아이디어를 찾기 위해 연속적이고, 집중할 수 있는 시간을 확보하기 어려움.
- 계획 또는 특정 방향을 정하지 않고 연구 아이디어를 탐색 시 많은 시간을 소비할 가능성이 높음

Contents

- 1. 연구주제 탐색하기
- 2. 단계적으로 깊이 있게
- 3. 다각적으로 접근하기
- 4. 논문 제출 및 수정
- 5. 그 외



1. 연구 주제 탐색하기

lung cancer immunotherapy

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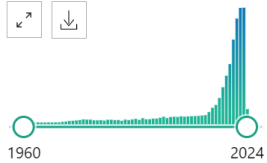
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Page 1 of 2,055

RESULTS BY YEAR



TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

ARTICLE ATTRIBUTE

Lung cancer immunotherapy: progress, pitfalls, and promises.

1 Lahiri A, Maji A, Potdar PD, Singh N, Parikh P, Bisht B, Mukherjee A, Paul MK.

Cite Mol Cancer. 2023 Feb 21;22(1):40. doi: 10.1186/s12943-023-01740-y.

PMID: 36810079 [Free PMC article.](#) Review.

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Lung cancer is the primary cause of mortality in the United States and around the globe. ...To this end, the present article encompasses a detailed overview of the recent developments in the immunotherapeutic landscape in targeting small cell **lung cancer** ...

First-Line Immunotherapy for Non-Small-Cell Lung Cancer.

2 Reck M, Remon J, Hellmann MD.

Cite J Clin Oncol. 2022 Feb 20;40(6):586-597. doi: 10.1200/JCO.21.01497. Epub 2022 Jan 5.

PMID: 34985920 Review.

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For patients with metastatic non-small-cell **lung cancer** (mNSCLC), the last decade has been characterized by critical progress that has contributed to substantially improved survival. ...Here we report the current status of first-line **immunotherapy** in mNSCLC t ...



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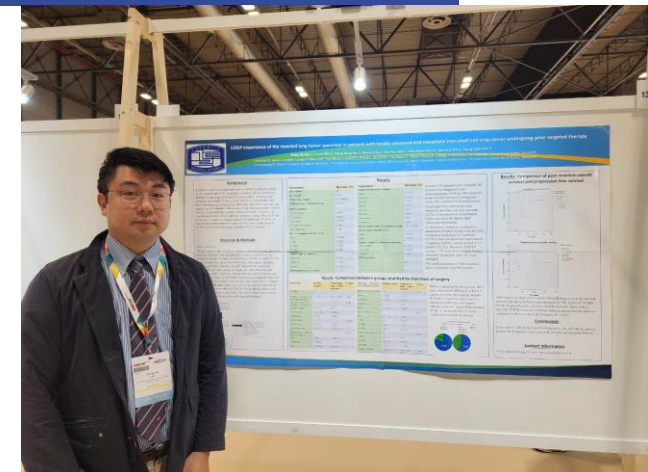
KALC 2023

Korean Association for Lung Cancer International Conference
Lung Cancer, from Challenge to Change
Nov. 30 - Dec. 1, 2023 | Lotte Hotel World, Seoul, Korea

SAVE THE DATE

Early Registration Deadline October 23, 2023	Regular Registration Deadline November 6, 2023
-------------------------------------------------	---------------------------------------------------

KALC
Korean Association
for Lung Cancer








- 폐암 분야는 가장 빠르게 변하고 있는 분야
- 바쁜 진료 일정 중에 빠르게 변하는 치료 trend를 쫓기 어려움.
- 진료 및 연구 환경에 따라 격차가 발생할 수 있음

Targeted therapies and immunotherapies

ORIGINAL ARTICLE

WILEY

Investigation of poor predictive factors in extensive stage small cell lung cancer under etoposide-platinum-atezolizumab treatment

Jeong Uk Lim¹ | Hye Seon Kang²  | Ah. Young Shin³ | Chang Dong Yeo⁴  |
Sung Kyoung Kim⁵ | Jin Woo Kim⁶ | Seung Joon Kim^{7,8}  | Sang Haak Lee⁴

Clinical Oncology 33 (2021) 619–626



Overview

Overcoming Osimertinib Resistance in Advanced Non-small Cell Lung Cancer



J.U. Lim

Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea



Review Article

Current literature review on the tumor immune micro-environment, its heterogeneity and future perspectives in treatment of advanced non-small cell lung cancer

Jeong Uk Lim¹, Eunyoung Lee^{2,3}, Sang-Yun Lee⁴, Hyeong Jun Cho^{2,3}, Dong Hyuck Ahn^{2,3}, Yongki Hwang³, Joon Young Choi⁵, Chang Dong Yeo⁶, Chan Kwon Park¹, Seung Joon Kim^{2,3}

- Keeping updates of new anticancer drugs and treatment strategies in lung cancer
- Want to know more about novel targeted therapies

Immune related adverse events

Article

Predictive Role of Prior Radiotherapy and Immunotherapy-Related Adverse Effects in Advanced NSCLC Patients Receiving Anti-PD-1/L1 Therapy

Jeong Uk Lim ^{1,†}, Soo Han Kim ^{2,†}, Hye Seon Kang ³, Sung Kyoung Kim ⁴, Ju Sang Kim ⁵, Jin Woo Kim ⁶, Seung Joon Kim ^{7,8}, Chang Dong Yeo ^{9,*} and Chang Min Choi ^{2,10,*}



Review Article

Immune checkpoint inhibitor-related interstitial lung disease in patients with advanced non-small cell lung cancer: systematic review of characteristics, incidence, risk factors, and management

Seohyun Kim, Jeong Uk Lim[^]

Seminars in Oncology 49 (2022) 141–147

medicine,



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Seminars in Oncology

journal homepage: www.elsevier.com/locate/seminoncol



Immune checkpoint inhibitors in patients with chronic kidney disease: Assessing their ability to cause acute kidney injury and informing their proper use



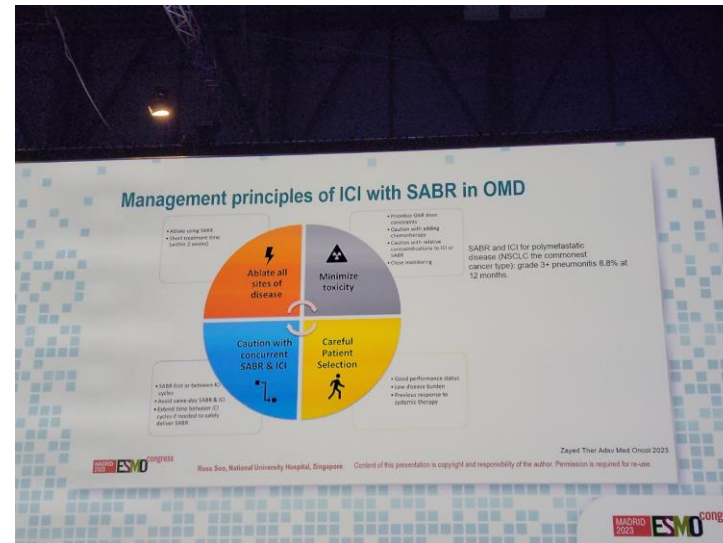
Ji Won Min¹, Jeong Uk Lim^{2,*}

¹ Division of Nephrology, Department of Internal Medicine, Bucheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, South Korea
² Division of Pulmonary, Critical Care and Allergy, Department of Internal Medicine, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

- Frequently encounter irAEs in clinical settings
- Most of them self-limiting, but steroid resistant cases could be fatal
- Lung cancer patients have underlying lung diseases, more prone to pulmonary irAEs.

Oligometastases

- 매력적으로 느낀 주제
- Stage IV라는 한계에 도전
- 다학제



Timing of radiation therapy

Preemptive consolidative RT for all disease sites

- Pros:
 - Potentially improving OS & PFS
- Cons:
 - Higher toxicities
 - Lack of evidence
- Indication
 - Younger age, good PS
 - Brain & adrenal gland metastasis
 - Limited metastatic SCC or no EGFR & ALK mutation

Salvage RT for only progressing or persistent sites

- Pros:
 - Lower toxicities
- Cons:
 - Missing optimum RT timing
- Indication
 - Progression after EGFR TKIs or ALK inhibitors
 - Candidates for immune check point blockades with PD-L1 negative

ESMO 2023

Classification of oligometastatic disease by ESTRO and EORTC

- De-novo oligometastasis**
 - Genuine oligometastasis
 - Synchronous & metachronous within 6 months or 6 months after diagnosis
- Repeat oligometastasis**
 - Genuine oligometastasis
 - Repeated oligometastatic status after treatments
- Induced oligometastasis**
 - Diagnosis of polymetastatic disease
 - Oligometastasis after treatments
- Recurrence**
 - Disease progression after systemic therapy-free interval
 - New or regrowing lesions
- Progression**
 - Disease progression under active systemic therapy
 - New growing, or regrowing lesion
- Persistent**
 - Persistent but non-progressive lesions under active systemic therapy

ESMO 2023

Oligometastases

CLINICAL
Lung Cancer

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REVIEW ARTICLE | [VOLUME 22, ISSUE 5, E786-E792, SEPTEMBER 2021](#)

 [Download Full Issue](#)

Management of Oligometastasis and Oligoprogression in Patients with Epidermal Growth Factor Receptor Mutation-Positive NSCLC in the Era of Third-Generation Tyrosine Kinase Inhibitors

[Jeong Uk Lim](#)  

Published: March 16, 2021 • DOI: <https://doi.org/10.1016/j.clc.2021.03.004> •

 [Check for updates](#)

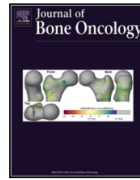


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Journal of Bone Oncology

journal homepage: www.elsevier.com/locate/jbo

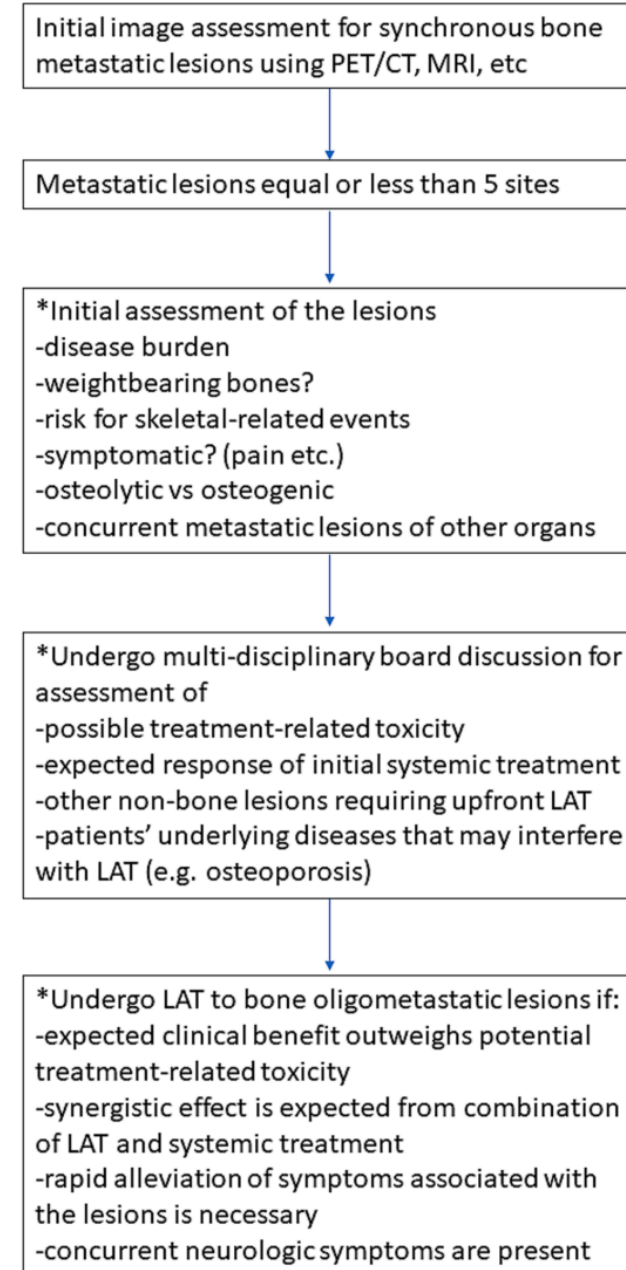
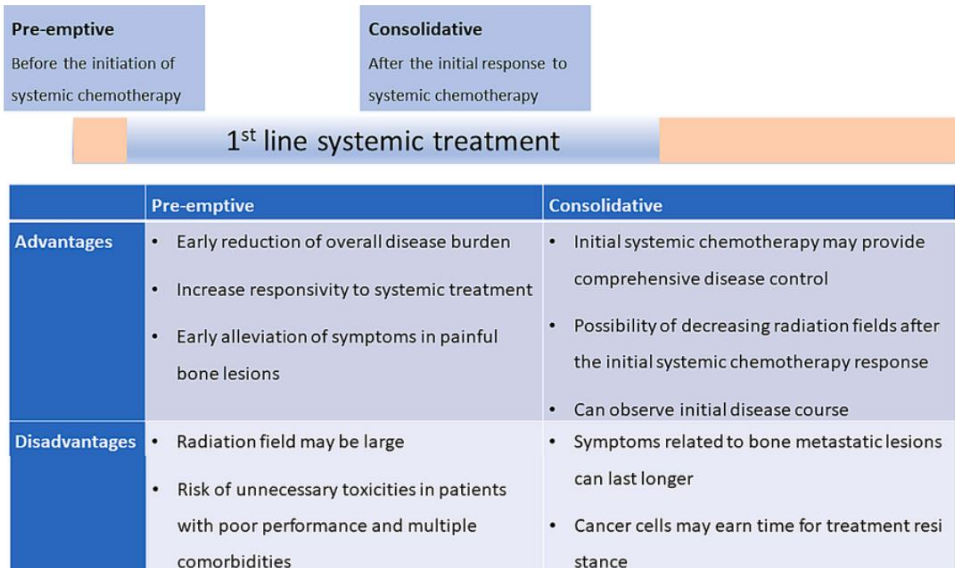


Review Article

Optimal timing for local ablative treatment of bone oligometastases in non-small cell lung cancer

Jayoung Lee^a, Jung A. Kim^{b,c}, Tai Joon An^b, Hyochun Lee^d, Eun Ji Han^e, Young Jo Sa^f, Hyo Rim Kim^g, Chan Kwon Park^b, Tae-Jung Kim^h, Jeong Uk Lim^{b,*}

GRAPHICAL ABSTRACT



Association between clinical outcomes and local treatment in stage IV non-small cell lung cancer patients with single extrathoracic metastasis



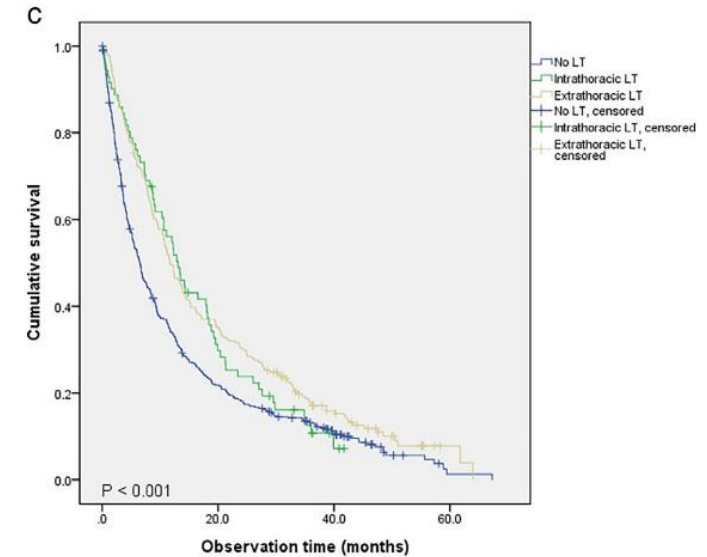
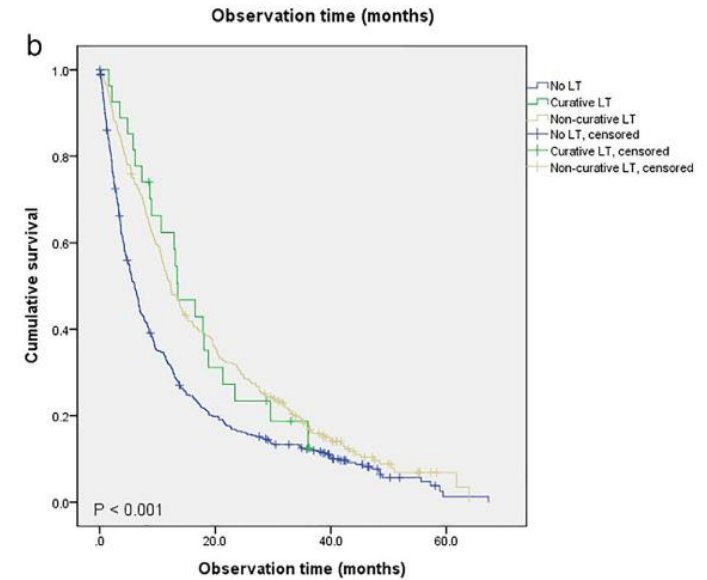
Jeong Uk Lim¹ | Hye Seon Kang² | Ah Young Shin³ | Chang Dong Yeo⁴  |
Chan Kwon Park¹ | Sang Haak Lee⁴ | Seung Joon Kim^{5,6}  | Korean Association for Lung
Cancer, Korea Central Cancer Registry

TABLE 1 Clinical characteristics of patients

	Patients
Number	787
Age	68.1 ± 11.8
Sex (female)	202 (25.7)
BMI	22.3 ± 3.4
Ever smokers	505 (65.1)
OS (months) (median, 95% CI)	8.8 (7.7–9.9)
Pathology	
Squamous	183 (23.3)
Adenocarcinoma	425 (54.0)
Large cell	8 (1.0)
NSCLC NOS	68 (8.6)
Other	103 (13.1)
ECOG	
0–1	449 (79.6)
2 or more	115 (20.4)
EGFR mutation	171/532 (32.1)
T stage (T1/T2/T3/T4)	76 (11.9)/189 (29.7)/155 (24.3)/217 (34.1)
N stage (N0/N1/N2/N3)	126 (16.7)/56 (7.4)/218 (29.0)/353 (46.9)
Concurrent intrathoracic metastatic lesions	218 (27.7)
MPE	123 (15.6)
Contralateral lung	89 (11.3)
Pleural nodule	50 (6.4)
Malignant pericardial effusion	20 (2.5)

Concurrent intrathoracic metastatic lesions	218 (27.7)
MPE	123 (15.6)
Contralateral lung	89 (11.3)
Pleural nodule	50 (6.4)
Malignant pericardial effusion	20 (2.5)
M1b, extrathoracic site	
Bone	330 (41.9)
Brain	214 (27.2)
Adrenal	76 (9.7)
Liver	74 (9.4)
Extrathoracic LN	67 (8.5)
Other sites	30 (3.8)
Initial treatment	
Chemotherapy	292 (39.8)
Best supportive care	201 (27.4)
Radiotherapy	93 (12.7)
CCRT	91 (12.4)
Surgery	26 (3.5)
Unknown	30 (4.1)
LT performed	301 (38.2)
LT objectives (<i>n</i> = 301)	
Curative	32 (10.6)
Noncurative	269 (89.4)
LT modality	
Metastasectomy	17 (2.2)
RT	297 (37.7)





1305P Importance of the resected lung tumor specimen in patients with locally advanced and metastatic non-small cell lung cancer undergoing prior targeted therapy

Jeong Uk Lim 1, Ji won Min 2, Chang Dong Yeo 3, Young Jo Sa 1, Hyo Rim Kim 1, Chan Kwon Park 1, Tae-Jung Kim 1, Seung Joon Kim 4

1 Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul/KR; 2 Bucheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul/KR; 3 Eunpyeong St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul/KR; 4 Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul/KR

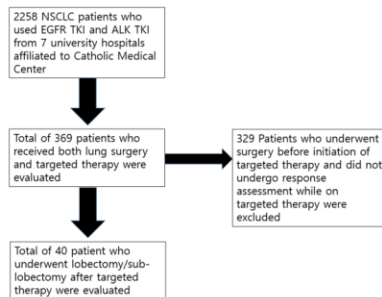
Background

In patients with driver mutations, such as EGFR (epidermal growth factor receptor) and ALK (anaplastic lymphoma kinase) mutations, targeted therapies are performed for unresectable, advanced, and metastatic non-small cell lung cancer (NSCLC). For patients who show downstaging of lung cancer following targeted therapy, salvage surgery can be considered. Resection of regrowing pulmonary masses can also be performed to acquire a tumor specimen. However, the clinical significance of this approach remains unclear. The aim of this study is to evaluate the clinical value of the pathologic findings of resected lung tumor samples in patients who have undergone prior EGFR and ALK tyrosine kinase inhibitor (TKI) treatment.

Materials & Methods

Patient selection

The deidentified data of NSCLC patients admitted to seven university hospitals affiliated with the Catholic University of Korea were obtained from the Clinical Data Warehouse (CDW) database. A total of 369 patients who underwent lobectomy and targeted therapies including gefitinib, erlotinib, afatinib, dacomitinib, lazertinib, osimertinib, alectinib, lorlatinib, brigatinib, and crizotinib were screened for study eligibility. Among these patients, 40 individuals who were previously unresectable, had undergone targeted therapies and later received surgical resection of a lung tumor were evaluated for the study. Salvage surgery was defined as surgical intervention based on standard-operation of NSCLC for advanced patients who initially had no surgical indication, but later showed tumor burden regressing without progression after targeted therapies.



Results

Parameters	Number (%)
Total number	40
Sex (female)	28 (70)
Median Age (range)	61.5 (40-82)
Pathologic type , Adenocarcinoma	40 (100)
Driver mutations	
EGFR mutation	36 (90)
19 deletion	22 (61.1)
21 L858R	12 (33.3)
Subtype not available	2 (5.6)
ALK translocation	4 (10)
PD-L1 at diagnosis, SP 263 (n=27)	
0%	12 (30.0)
1-9%	5 (12.5)
10-49%	5 (12.5)
50-99%	5 (12.5)
Clinical Stage at diagnosis	
Stage I-II	3 (7.5)
Stage III	12 (30.0)
Stage IV	25 (62.5)
Smoking history (Ever smoker)	12 (30.0)

Parameters	Number (%)
Targeted therapy prior to surgery	
Afatinib	20 (50.0)
Osimertinib	7 (17.5)
Erlotinib	5 (12.5)
Gefitinib	3 (7.5)
Alectinib	3 (7.5)
Brigatinib	1 (2.5)
Dacomitinib	1 (2.5)
Lazertinib	1 (2.5)
Median duration, prior TKI treatment (month)	18.0 (2.6-68.6)
Clinical stage at initiation of TKI	
Stage III	9 (22.5)
Stage IV	31 (77.5)
Change in stage (TKI initiation to resection)	
Down-staged	3 (7.5)
Unchanged	34 (85.0)
Upstaged	2 (5.0)
ECOG at resection	
0	28
1	10
2	2

A total of 40 patients were evaluated. All patients were diagnosed with adenocarcinoma. Of these, 90% showed a positive EGFR mutation at diagnosis, while 10% exhibited ALK translocation.

No postoperative mortalities were observed, and there was only one case (2.5%) of postoperative complication, which was atrial fibrillation rapid ventricular tachycardia.

At the time of resection, a subjective assessment of tumor burden indicated that it remained unchanged in 7 patients (17.5%), showed significant regression in 12 patients (30.0%), and increased in 21 patients (52.5%). Based on TNM 8th staging, 7.5% were down-staged, 85.0% remained unchanged, and 5.0% were upstaged.

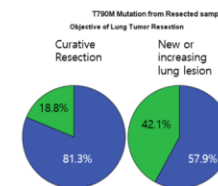
The median duration of TKI treatment prior to resection was 18.0 months.

Results- Comparison between groups stratified by objectives of surgery

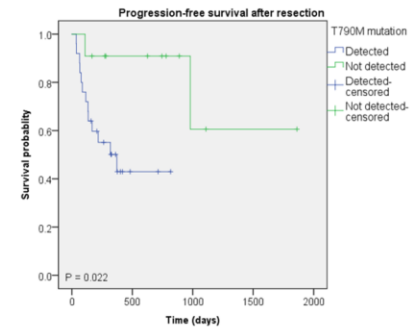
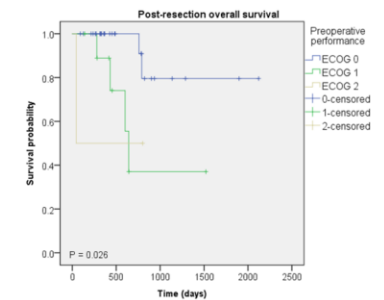
Parameters	Salvage surgery	Progressing lung lesion resection	P-value
Number	18	21	
Duration of prior TKI treatment (months)	10.3 (2.6-52.1)	19.1 (5.9-68)	0.059
Change in stage (TKI initiation to resection)			0.160
Down-staged	3 (16.7)	0 (0)	
Unchanged	14 (77.8)	19 (95.0)	
Upstaged	1 (5.6)	1 (5.0)	
Surgery type			<0.001
Lobectomy	15 (83.3)	4 (19.0)	
Sub-lobectomy	3 (16.7)	17 (81.0)	
Differentiation level, resection sample			0.674
Well	0 (0)	1 (4.8)	
Moderate	9 (56.3)	11 (52.4)	
Poor	7 (43.8)	9 (42.9)	

Pathologic parameters from resected samples	Salvage surgery	Progressing lung lesion resection	P-value
Lympho-vascular invasion			0.114
None	6 (35.3)	5 (25.0)	
Lymphatic	2 (11.8)	7 (35.0)	
Vascular	3 (17.6)	0 (0)	
Both	6 (35.3)	8 (40.0)	
PD-L1 SP263			0.001
0%	11 (73.3)	1 (8.3)	
1-9%	0 (0)	8 (66.7)	
10-49%	1 (6.7)	1 (8.3)	
50-99%	3 (20.0)	2 (16.7)	
Viable tumor cell (n=25)			0.250
<20%	2 (18.2)	0 (0)	
20-49%	2 (18.2)	3 (21.4)	
50-100%	7 (63.6)	11 (78.6)	
T790M mutation	3/16 (18.8)	8/19 (42.1)	0.138

When comparing the two groups, there was a significant difference in PD-L1 expression from the resected samples (P=0.001). However, there were no significant differences in lympho-vascular invasion, tumor differentiation levels, or the proportion of viable tumor cells between the groups.



Results- Comparison of post-resection overall survival and progression-free survival



After resection, there was a significant difference in overall survival between groups stratified by preoperative ECOG scores (P=0.026). Of the 36 patients with a positive EGFR mutation, those with a detected T790M mutation exhibited better progression-free survival compared to those without the mutation (P=0.022).

Conclusions

Lung surgery following targeted therapies is safe and can be used to predict the prognosis of patients with initially unresectable NSCLC.

Contact information

E-mail address (Jeong Uk Lim): cracovian@catholic.ac.kr

Characteristics of Driver Mutation Positive Oligometastatic Non-Small Cell Lung Cancer Patients Concurrently Treated with Tyrosine Kinase Inhibitor and definitive radiotherapy

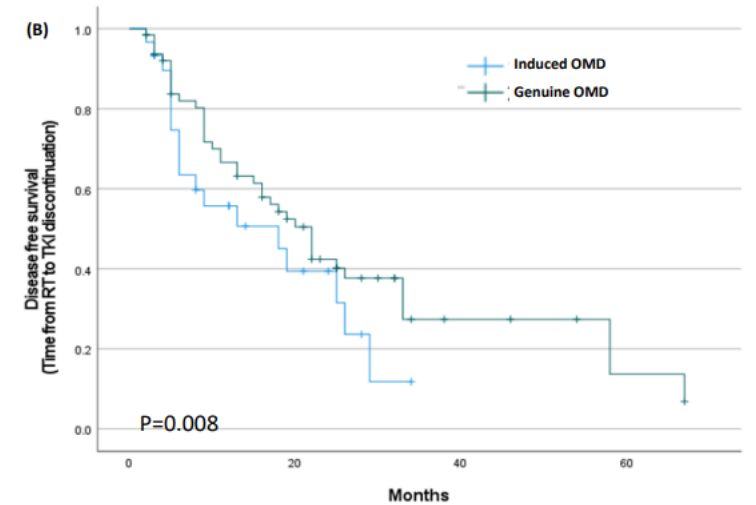
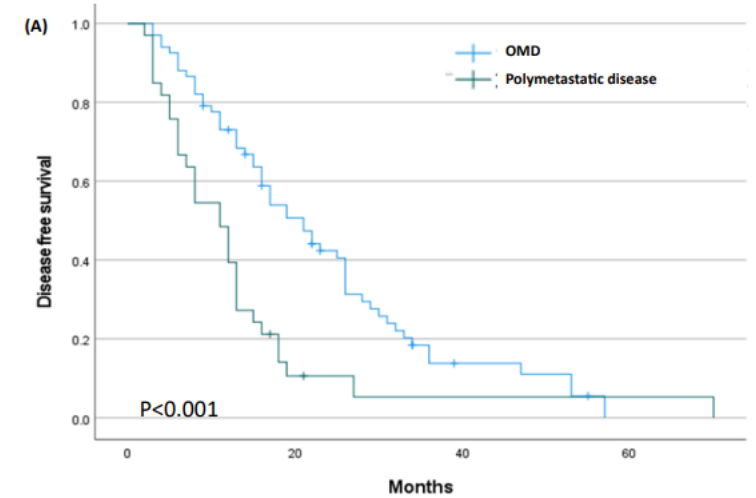
Kyuhwan Kim¹, Jeong Uk Lim²

¹Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

²Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul 150-713, Republic of Korea



Clinical features	Timing of RT (<3months)	Timing of RT (>3 months)	P-value
Patients, n (%)	42 (44.2%)	53 (55.8%)	
Age at which TKI started (years)	64.6±9.02	65.34±11.9	0.730
Sex, n (%)			0.139
Male	18 (42.9%)	15 (28.3%)	
Female	24 (57.1%)	38 (71.7%)	
TKI treatment duration, (months)	23.02±16.70	30.40±18.16	0.023
TKI, n (%)			0.268
EGFR			
Afatinib	17 (40.5%)	20 (37.7%)	
Erlotinib	7 (16.7%)	3 (5.7%)	
Gefitinib	6 (14.3%)	15 (28.3%)	
Dacomitinib	3 (7.1%)	1 (1.9%)	
Osimertinib	4 (9.5%)	7 (13.2%)	
Lazertinib	0 (0%)	1 (1.9%)	
ALK			
Alectinib	3 (7.1%)	2 (3.8%)	
Crizotinib	2 (4.8%)	1 (1.9%)	
Brigatinib	0 (0%)	2 (3.8%)	
Lorlatinib	0 (0%)	1 (1.9%)	
Oligometastasis classification, n (%)			< 0.001
Induced oligoprogression	1 (2.4%)	20 (37.7%)	
Induced oligopersistence	0 (0%)	9 (17.0%)	
Repeat oligoprogression	1 (2.4%)	15 (28.3%)	
Repeat oligorecurrence	2 (4.8%)	0 (0%)	
Repeat oligopersistence	0 (0%)	7 (13.2%)	
Metachronous oligorecurrence	21 (50%)	1 (1.9%)	
Metachronous oligoprogression	1 (2.4%)	0 (0%)	
Synchronous oligometastasis	16 (38.1%)	1 (1.9%)	





2. 단계적으로 깊이 있게

Chronic Obstructive Pulmonary Disease-Related Non-Small-Cell Lung Cancer Exhibits a Low Prevalence of EGFR and ALK Driver Mutations

Jeong Uk Lim¹*, Chang Dong Yeo¹*, Chin Kook Rhee¹, Yong Hyun Kim¹, Chan Kwon Park¹, Ju Sang Kim¹, Jin Woo Kim^{1*}, Sang Haak Lee¹, Seung Joon Kim¹, Hyoung Kyu Yoon¹, Tae-Jung Kim², Kyo Young Lee²

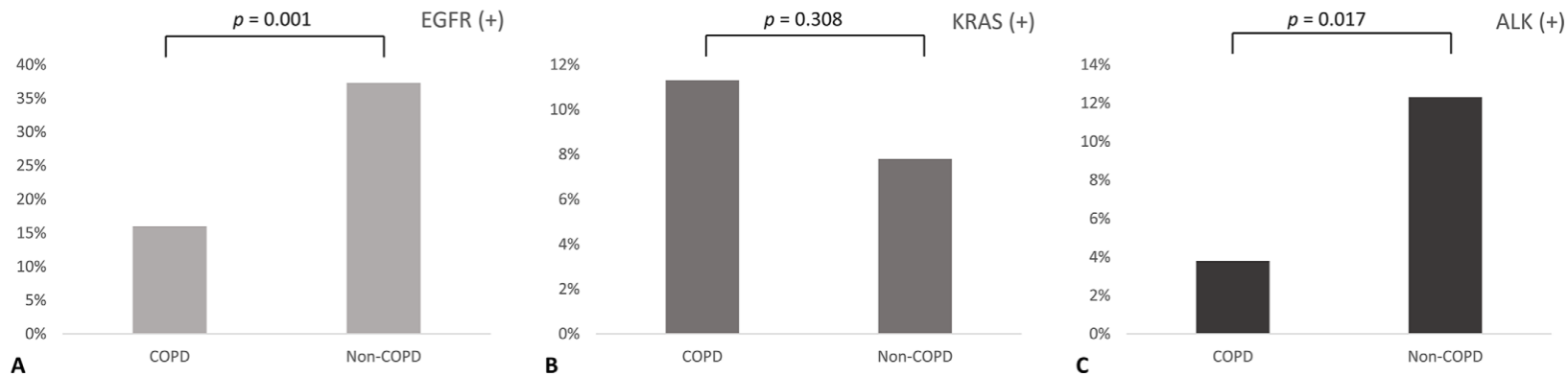


Table 2. Multivariate analysis of patient characteristics associated with EGFR and ALK mutation statuses.

	EGFR			ALK		
	Odds Ratio	95% CI	p-value	Odds Ratio	95% CI	p-value
COPD	0.197	0.065–0.600	0.004	0.487	0.254–0.931	0.029
Age	0.992	0.959–1.025	0.616	1.005	0.981–1.030	0.678
Male	4.217	1.478–12.030	0.007	0.453	0.236–0.868	0.017
Smoking	1.188	0.470–3.004	0.716	0.468	0.234–0.937	0.032
Adenocarcinoma	3.113	0.686–14.117	0.141	3.662	1.062–12.624	0.040

Overall survival of driver mutation-negative non-small cell lung cancer patients with COPD under chemotherapy compared to non-COPD non-small cell lung cancer patients

This article was published in the following Dove Press journal:
International Journal of COPD

Jeong Uk Lim
Chang Dong Yeo
Chin Kook Rhee
Yong Hyun Kim
Chan Kwon Park
Ju Sang Kim
Jin Woo Kim
Seung Joon Kim
Hyoung Kyu Yoon
Sang Haak Lee

Division of Pulmonology and
Critical Care Medicine, Department
of Internal Medicine, College of
Medicine, The Catholic University of
Korea, Seoul, Republic of Korea

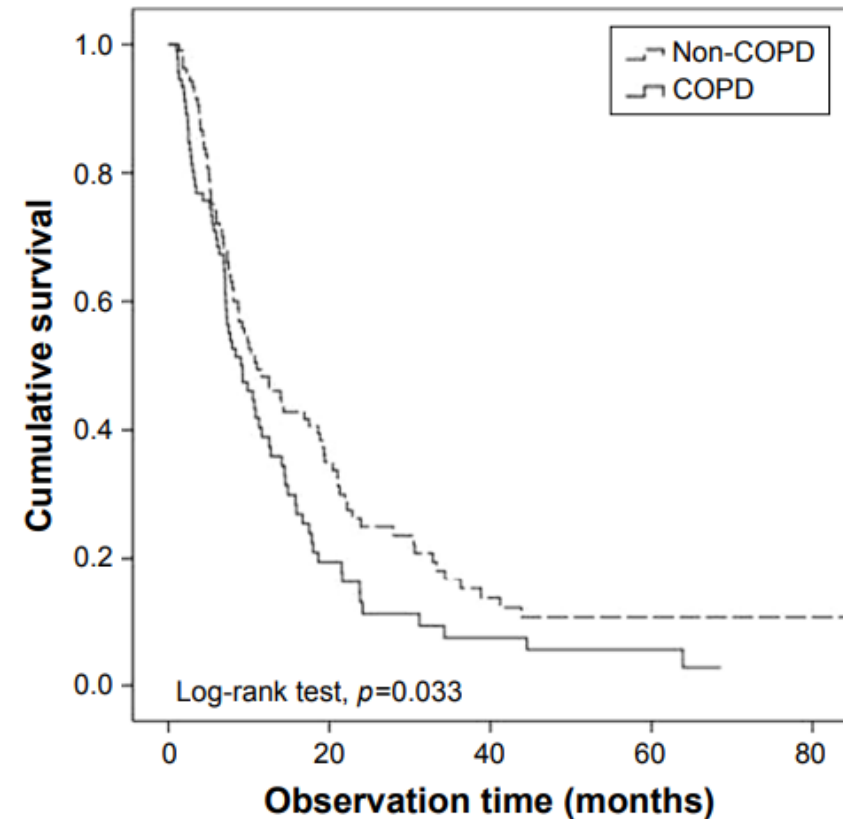
Objectives: Focusing on the advanced non-small cell lung cancer (NSCLC) patients without driver mutations can elucidate the clinical impact of COPD on treatment outcomes. The present study evaluated the effects of COPD on the overall survival of driver mutation-negative NSCLC patients undergoing conventional chemotherapy as the first-line treatment.

Patients and methods: Medical records of stage IIIB and IV NSCLC patients from January 2008 to December 2015 from six university hospitals were reviewed.

Results: The total study population consisted of 197 patients; 92 (46.7%) were COPD patients and 105 (53.3%) were non-COPD patients. The median survival in the non-COPD group was 11.5 months, compared to 9.2 months in the COPD group. Univariate analysis showed that old age (>70 years), high Eastern Cooperative Oncology Group status score (2–3), squamous cell histology, and COPD were risk factors for mortality. The presence of COPD was a significant prognostic factor in univariate analysis (hazard ratio [HR], 1.402; $p=0.037$), but not in multivariate analysis (HR, 1.275; $p=0.144$). Subgroup analysis of 143 smokers showed that COPD was a significant prognostic factor on multivariate analysis (HR, 1.726; $p=0.006$). In 154 stage IV patients, COPD was also a prognostic factor in multivariate analysis (HR, 1.479; $p=0.039$).

Conclusion: COPD had a negative impact on overall survival in the stage IV NSCLC and smoker NSCLC patients who underwent conventional chemotherapy.

Keywords: non-small cell lung cancer, chronic obstructive pulmonary disease, smoker, overall survival



- Question: COPD유무에 따른 NSCLC이 다른 임상적 특징을 갖는다면, 예후도 다를까?

Question

- COPD와 Non-COPD가 다른 disease characteristics를 가지고, 예후도 다르다고 하면,
- 동반된 smoking effect 일까?
- 아니면 fixed airway obstruction 자체의 영향일까?

Comparison of clinical characteristics and overall survival between spirometrically diagnosed chronic obstructive pulmonary disease (COPD) and non-COPD never-smoking stage I-IV non-small cell lung cancer patients

This article was published in the following Dove Press journal:
International Journal of Chronic Obstructive Pulmonary Disease

Jeong Uk Lim
Chang Dong Yeo
Chin Kook Rhee
Hye Seon Kang
Chan Kwon Park
Ju Sang Kim
Jin Woo Kim
Seung Joon Kim
Hyoung Kyu Yoon
Sang Haak Lee

Division of Pulmonology and Critical Care Medicine, Department of Internal Medicine, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

Objectives: A significant proportion of non-small cell lung cancer (NSCLC) patients are never-smokers. However, the clinical impact of spirometrically diagnosed chronic obstructive pulmonary disease (COPD) on the prognosis of never-smoking NSCLC has not been evaluated in the context of treatment modalities and other cancer-related factors. In the present study, we evaluated the clinical impact of COPD in non-smoking NSCLC patients, and correlations between COPD and other previously unevaluated clinical variables.

Materials and methods: Lung cancer patients (stages I to IV) diagnosed with NSCLC between January 2008 and December 2015 at six university hospitals were enrolled in the study cohort and retrospectively evaluated. Clinical parameters were compared between spirometrically diagnosed COPD and non-COPD groups. Correlations between COPD status and other variables were evaluated. In order to reduce the effect of potential confounders and selection bias, we performed adjustment for differences in baseline parameters by using propensity score matching (PSM). After PSM, clinical variables were evaluated for their effects on overall survival (OS).

Results: Of the 345 patients enrolled in the study, 277 were categorized as non-COPD and 68 as COPD. Old age, male gender, and wild-type EGFR were significantly correlated with COPD. By univariate analysis of 218 patients in a propensity score matched cohort, not receiving active anticancer treatment, advanced stage, and COPD were significantly associated with shorter OS. Multivariate analysis showed that not receiving active anticancer treatment, advanced cancer stage, and COPD ($P=0.044$, HR: 1.526, 95% CI: 1.012–2.300) were significant predictors of shorter OS.

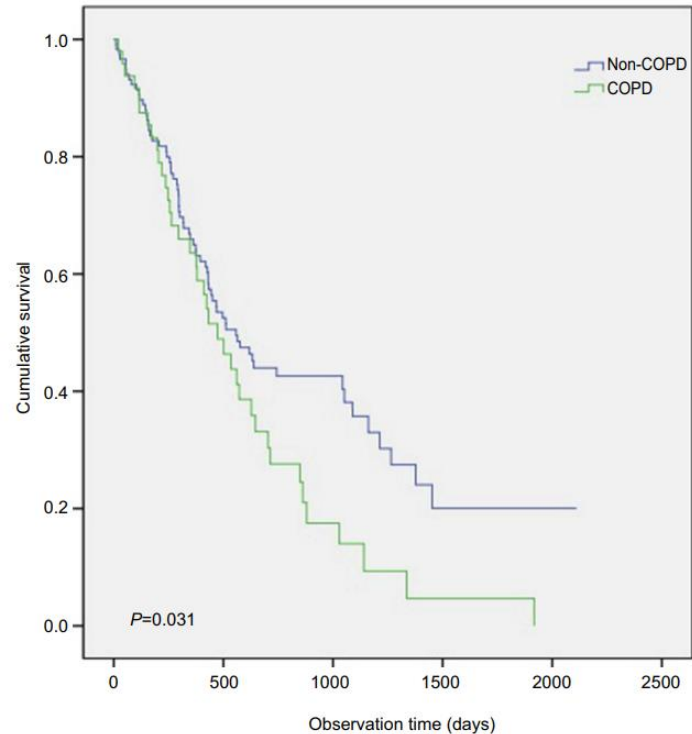
Conclusion: In the present study, never-smoker NSCLC patients with COPD had shorter OS times, compared to non-COPD never-smoker NSCLC patients.

Keywords: never smoker, overall survival, risk factor

Table 2 Risk factors for nonsmoker COPD among NSCLC patients (univariate and multivariate analysis)

Characteristics	Univariate			Multiple		
	OR	95% CI	P	OR	95% CI	P
Male/Female	3.791	1.856–5.727	<0.001	3.202	1.756–5.839	<0.001
Age (≤65/>65)	2.752	1.541–4.914	0.001	2.255	1.206–4.217	0.011
ECOG (0–1/≥2)	2.469	1.258–4.848	0.009	1.767	0.850–3.671	0.127
EGFR mutation (negative/positive)	0.452	0.253–0.805	0.007	0.516	0.278–0.955	0.035
Histology (nonsquamous/squamous)	1.753	0.596–5.155	0.308	-	-	-
BMI (≥23/<23)	1.332	0.780–2.274	0.294	-	-	-
Stage (I–IIIA/IIIB–IV)	1.573	0.902–2.742	0.110	-	-	-

Abbreviations: BMI, body mass index; CI, confidence interval; COPD, chronic obstructive pulmonary disease; ECOG, Eastern Cooperative Oncology Group; EGFR, epidermal growth factor receptor; OR, odds ratio.



Nanos

• COPD또 진 않음)

Table 2. Comparison between three groups according to smoking status and presence of emphysema

Clinical parameters	Never smoker	Smoker 1 (No emphysema)	Smoker 2 (Emphysematous)	P-value
Sex (male)	0 (0%)	3 (75%)	4 (100%)	0.012
Age	70.3 (57-79)	57.8 (31-73)	62.5 (55-69)	0.416
EGFR mutation	3 (75.0%)	1 (25.0%)	1 (25.0%)	0.254
PD-L1 expression (SP263/22C3)	2 (50%)	0 (0.0%)	3 (75.0%)	0.091
Pulmonary functions				
FEV1 (L)	2.2 ± 0.3	2.8 ± 0.3	2.8 ± 0.9	0.248
FEV1 (%)	93.3 ± 17.6	87.5 ± 12.1	87.5 ± 20.9	0.864
FVC (L)	2.6 ± 0.8	3.9 ± 0.6	3.7 ± 0.7	0.049
FVC (%)	92.5 ± 14.6	88.8 ± 10.6	86.8 ± 11.9	0.819
DLCO (%)	96.5 ± 21.5	98.5 ± 25.5	94.5 ± 33.9	0.979
COPD	0 (0)	2 (50)	1 (25)	0.373
Stage (Stage I/II/III)	1(25.0) / 2(50.0) / 1 (25.0)	4(100%)/ 0(0)/ 0(0)	4(100%)/ 0(0)/ 0(0)	0.092
T staging	2 (50)/ 1 (25)/ 1 (25)	3 (75)/ 1 (25)/ 0 (0)	3 (75)/ 1 (25)/ 0 (0)	0.484
N staging	2 (50)/0/ 2 (50)/ 0 (0)	4 (100)/ 0 (0)/ 0 (0)/ 0 (0)	4 (100)/ 0 (0)/ 0 (0)/ 0 (0)	0.091
CRP	0.35-0.49	0.21-1.69	0.31-4.76	0.194
NLR	1.26-15.8	0.81 – 2.86	1.28 – 24.32	0.550

re가 다르

For screening, 299 p
cancer between 201

After exclusion, 59 p

After exclusion, 23 p
provide tissue sampl

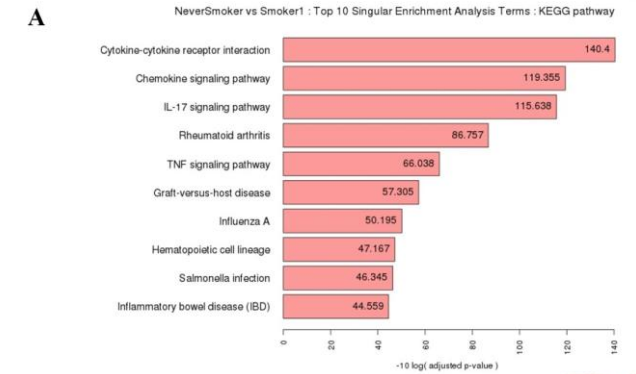
for unsuitable sample quality

Total of 12 patients with adenocarcinoma were finally enrolled

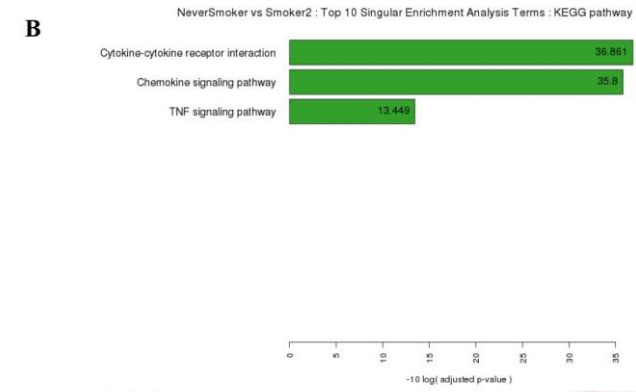
Never smoker vs Smoker 1			Never smoker vs Smoker 2			Smoker 1 vs Smoker 2		
Gene	Log 2 FC	P-value	Gene	Log 2 FC	P-value	Gene	Log 2 FC	P-value
Top 4 upregulated genes								
SFRP1	5.66	0.000511	BLK	2.55	0.0282	HLA-DQ A2	3.68	0.0195
IL6	4.53	0.00481	IL1RN	2.1	0.00798	MMP7	3.41	0.00166
SERPINB 5	4.53	0.0099	WNT2B	2.02	0.0111	TDO2	2.71	0.00699
TNFRSF1 1B	4.32	0.00323	CXCL3	1.8	0.0213	MMP9	2.64	0.01

Never smoker vs Smoker 1			Never smoker vs Smoker 2			Smoker 1 vs Smoker 2		
Gene	Log 2 FC	P-value	Gene	Log 2 FC	P-value	Gene	Log 2 FC	P-value
Top 4 downregulated genes								
MMP1	-3.1	0.0427	PLOD2	-1.92	0.017	VTCN1	-4.04	0.0176
COL11A 1	-3.31	0.0443	CXCL10	-2.02	0.0139	IL6	-4.32	0.0063
MMP7	-3.55	0.00128	MAGEB2	-2.33	0.0221	TNFRSF1 1B	-4.43	0.00278
HLA-DQ A2	-3.84	0.016	COL11A1	-4.76	0.00839	SFRP1	-4.88	0.00134

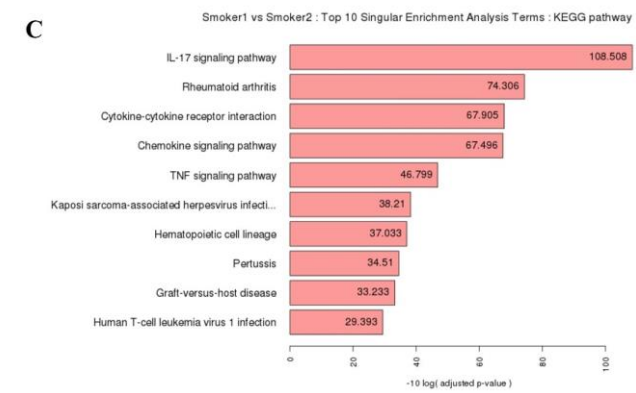
- NeverSmoker vs. Smoker1
the enriched biological terms from the DEGs of (P value \leq 0.05) \cap (|Fold-Change| \geq 2)



- NeverSmoker vs. Smoker2
the enriched biological terms from the DEGs of (P value \leq 0.05) \cap (|Fold-Change| \geq 2)



- Smoker1 vs. Smoker2
the enriched biological terms from the DEGs of (P value \leq 0.05) \cap (|Fold-Change| \geq 2)



Approach

- 기존 data를 활용하고, update
- 필요한 parameter를 추가
- 주제를 달리하면서 기존에 사용했던, 익숙한 연구디자인을 활용.
- 이전 논문 작성 시, 갖게 된 의문점을 다음 연구주제에 적용.



3. 다각적으로 접근하기



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Cytokine

journal homepage: www.elsevier.com/locate/cytokine



Review article

Potential predictive value of change in inflammatory cytokines levels subsequent to initiation of immune checkpoint inhibitor in patients with advanced non-small cell lung cancer

Jeong Uk Lim, Hyoung Kyu Yoon*

Division of Pulmonary, Allergy and Critical Care Medicine, Department of Internal Medicine, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

Author	Publication year	Cytokines studied	Country	Patients number	Time of detection	IO	Role
Ozawa et al. [32]	2018	IL-6 and TNF- α	Japan	10	7 days \pm commencement of PD1-I	Nivolumab or pembrolizumab	Early increase in inflammatory cytokines with PD1-I was indicated to be predictive of efficacy
Hirashima et al. [31]	2019	IFN- γ	Japan	29	14 days before ICI-Tx and 8 \pm 3 (T2), 22 \pm 7 (T3), and 43 \pm 7 (T4) days after ICI-Tx.	Nivolumab, atezolizumab, or pembrolizumab	Decrease in IFN- γ level was associated with early progression and more frequent ICI-induced interstitial pneumonitis
Karachaliou et al. [35]	2018	Proteins related to IFN- γ pathway	Spain	17	Detection performed from the specimen archive at diagnosis	Nivolumab	IFN- γ is an important marker for prediction of response to immune checkpoint blockade
Sanmamed et al. [33]	2017	IL-8	USA	19	Baseline; at 2-4 weeks after the first dose; and at the timepoints of response evaluation	Nivolumab or pembrolizumab	Early decreases in serum IL-8 level were associated with longer overall survival
Agulló-Ortuño et al. [30]	2020	IL-8, IL-11	Spain	27	Baseline, at 2 months after treatment start, and at disease progression	Nivolumab	IL-11 no relationship with response to nivolumab Changes in plasma IL-8 could be used to predict response for immunotherapy
Boutsikou et al. [27]	2018	IFN- γ , TNF- α , IL-1 β , IL-2, IL-4, IL-6 and IL-8	Greece	26	(a) Before initiation of anti-PD-1 inhibition treatment and (b) after 3 months of treatment or at disease progression	Pembrolizumab and nivolumab	Increased IFN- γ , TNF- α , IL-1 β , IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, and IL-12 levels resulted in better response to NSCLC anti-PD-1 inhibition and longer survival
Costantini et al. [26]	2018	IFN- γ , IL-2	France	43	At diagnosis of cancer, at initiation of nivolumab, and at the first tumor evaluation (2 months)	Nivolumab	IL-2 and IFN- γ showed no correlation with prognosis.

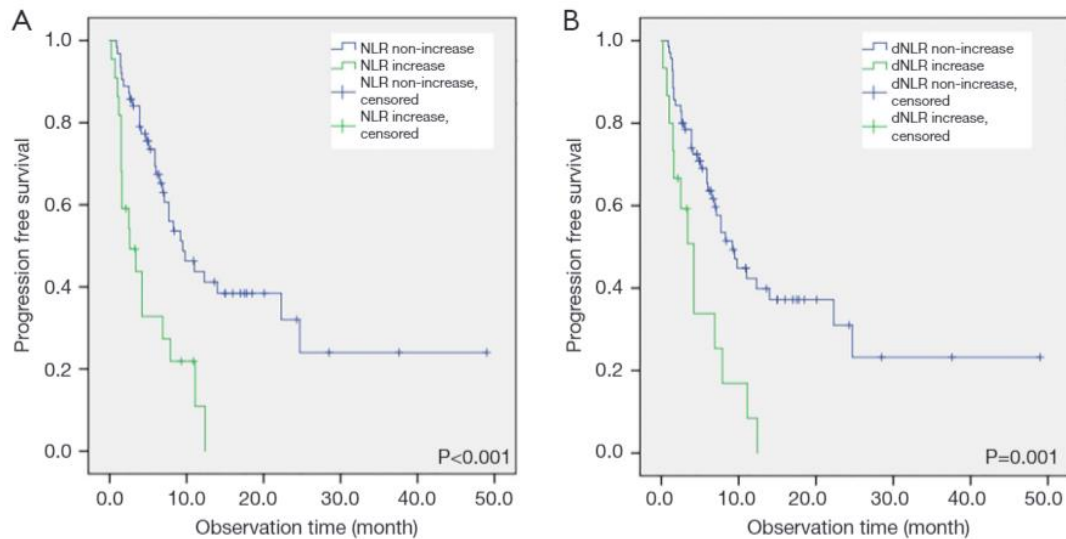
Abbreviations: IL, interleukin; IFN, interferon; TNF, tumor necrosis factor; PD, programmed death; ICI, immune checkpoint inhibitor; NSCLC, non-small cell lung cancer.

- 면역항암제의 효용성을 예측하는 바이오마커의 부족
- 1st and 2nd cycle간의 cytokine의 변화에 주목
- 이를 바탕으로 리뷰논문 작성



Predictability of early changes in derived neutrophil-to-lymphocyte ratio and neutrophil-to-lymphocyte ratio in patients with advanced non-small cell lung cancer treated with immune checkpoint inhibitors

Jeong Uk Lim¹, Hye Seon Kang², Chang Dong Yeo³, Ju Sang Kim⁴, Chan Kwon Park¹, Jin Woo Kim⁵, Seung Joon Kim^{6,7}, Sang Haak Lee^{3,7}



- 후향적 분석
- CMC 다기관 면역항암제 사용한 환자들 대상
- 1st cycle, 2nd cycle간의 derived NLR의 변화와 면역항암제의 효용성의 연관성을 본 연구

검체 연구

주제 Review

후향적 분석

전향적 연구

-time consuming
-resource consuming

동의서	2023.08.17 연구연장사	1차 검체 확보	2차검체 확보	Tube	보관상태	IO 약제	Line
Y		2021-07-08		SST	영하80 냉동	Pembrolizumab	
Y		2021-11-16				Pembrolizumab	
Y		2022-01-04	2022-01-24	SST		Pembrolizumab	
Y		2022-04-04	2022-04-29	SST		Nivolumab	
Y		2022-04-14	항암추가로 SST			Atezolizumab	
Y		2022-04-28	2022-05-19			Pembrolizumab	
Y		2022-06-02	2022-06-24				
Y		2022-06-08	2022-06-30				
N		2022-06-14	검체 못 받음				
Y		2022-06-24	2022-07-14			Atezolizun3rd	
		2022-07-18	시행안함			Pembrolizumab	
	Y	2022-08-18	N			Pembrolizumab	
Y	Y	2022-09-14	N			Pembrolizumab+Pem	
Y	Y	2022-09-28	2022-10-20			Pem-Paxel-carbo	
Y	Y	2022-10-28	외래에서 항암				
N		2022-10-31	폐렴악화로 사망				
Y	Y	2022-11-21				Pembrolizumab	
Y	N	2022-12-07					
Y	N	2023-03-08					
Y	Y	2023-05-03	2023-05-26	약들어가고 검체 채취 (2차)			
Y	Y	2023-07-12					
Y	N	2023-08-28				Pembrolizumab+Pem	

4. 논문 제출 및 수정

어느 저널에 내야할까?

- 논문 Scope
- Impact factor
- 행정 process가 매끄럽게 진행되는지
- 주로 하는 전략: Top IF-> modest IF
- 논문 작성 후 6개월 내에는 accept하는 것을 목표.
- Predatory journal? Belle's list 등 참고



First impression

- 성의 있게 작성이 되었나?

-논문의 길이: not too long or short

- 영문 오타 및 문법 실수

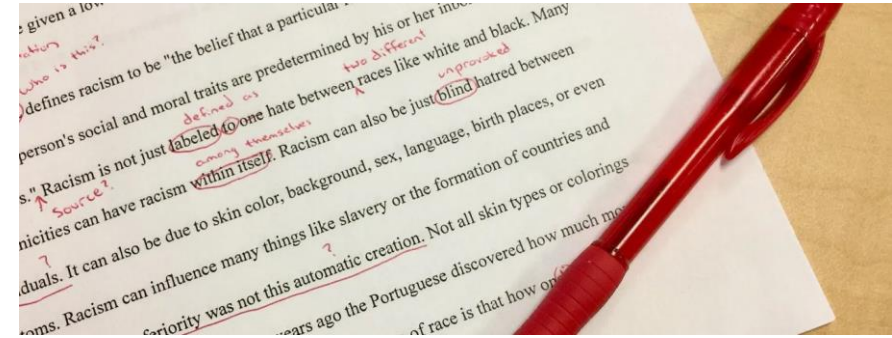
→ Reader를 위한 충분한 노력을 하였는지 보는 척도

→ Proofreading service가 요즘 잘 되어 있음.

- Journal scope에 맞춘 주제를 다뤘는지

• 최근에 trend에 맞춘 주제를 다뤘는지, something new가 있는지?

- First impression이 나쁘면 그 이후 과정에 계속 부정적인 영향을 미침



Chiara Lucini, MD, University of Poggia, Italy

Jong Hyuk Lee, MD, Ph.D., Seoul National University Hospital, South Korea

Yongwen Li, Tianjin Medical University General Hospital, China

Jiaqi Liang, Zhongshan Hospital, Fudan University, China

Shu-Yi Liao, University of Colorado Anschutz Medical Campus, USA

Jeong Uk Lim, Yeouido St. Mary's Hospital, The Catholic University of Korea, South Korea

David Lo, MB ChB, University of Leicester, United Kingdom

Michael Loebinger, Royal Brompton Hospital, UK

Lifei Lu, MD, The First Affiliated Hospital of Guangzhou Medical University, China

Macy Mei-Sze Lui, Queen Mary Hospital, The University of Hong Kong, China

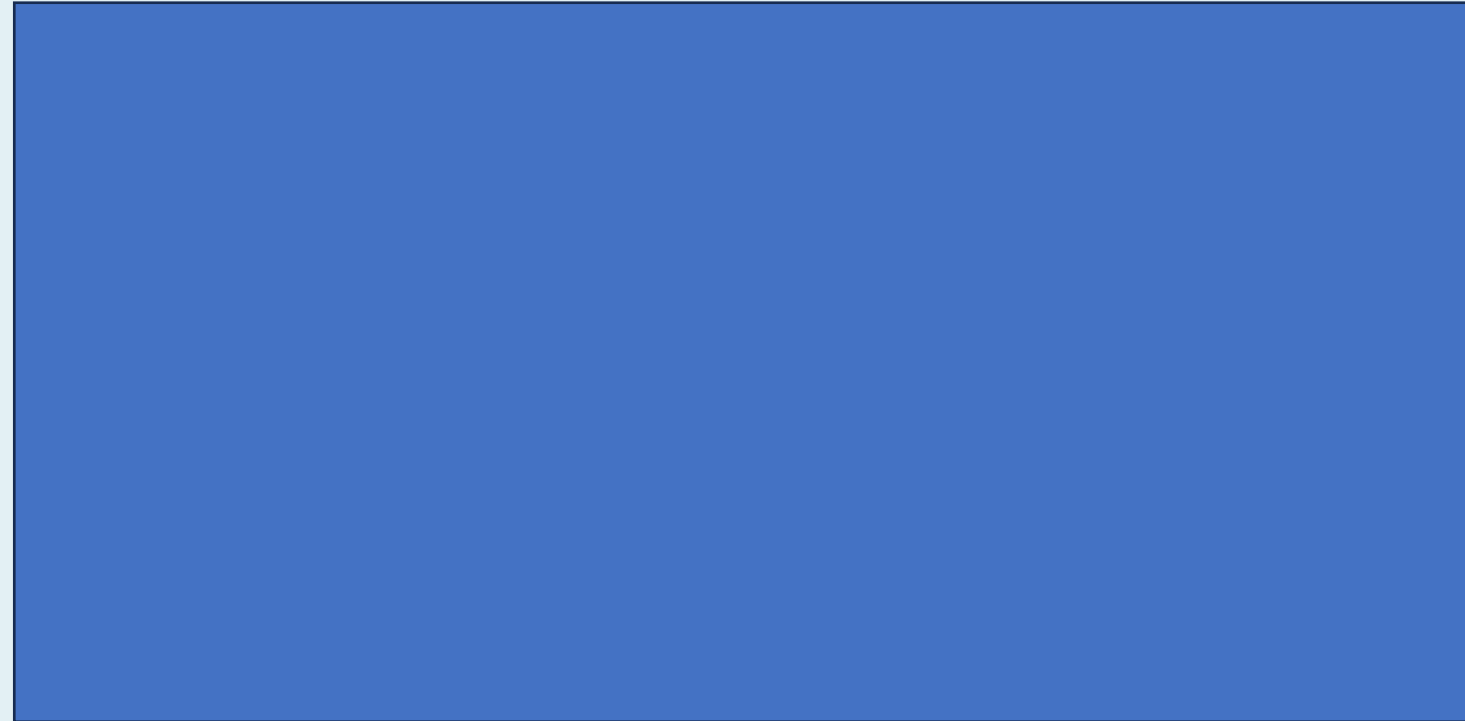
Micheál Mac Aogáin, St. James's Hospital and Trinity College Dublin, Ireland

Truthfulness

- Editor 입장에서는 신뢰성의 문제가 있는 논문을 accept하는 위험부담을 지고 싶지 않음
 - 실제로 papermill, AI generated 논문들이 대량 생산되고 있는 상황을 경계하고 있는 상황
 - 논문 작성 시 data를 확보한 과정을 가능하면 신뢰성 있게 기술하는 것이 필요.
 - Flow diagram을 신뢰성 있게 잘 보여주는 것이 도움이 됨
 - 결과가 잘 나오기 위해 **선택적으로 환자 데이터를 추출한 징후**가 있는지 살펴보게됨
- > consecutively enrolled, reliable data inclusion criteria



Comparison of prognosis or mortality between male and female populations using SEER database had been performed multiple times (<https://doi.org/10.1016/j.annepidem.2020.04.003>, <https://aacrjournals.org/cebpa/article/20/8/1629/69017/>). In order for this study to be a significant contribution regarding the impact of gender on prognosis of lung cancer and add originality, authors need to try show something more. I do not underestimate gender as an important factor in prognosis lung cancer,



✉ Jeong Uk Lim

Rejected | 24-Jun-23

I have assessed your manuscript and regret to inform you that it cannot be considered further, as it does not meet the criteria for BMC

Pulmonary Medicine. Studies reporting descriptive results from a single institution (or area) will only be considered if analogous data have not been previously published in a peer reviewed journal and the conclusions provide distinct insights that are of relevance to a regional or international audience. In this case, we find that these criteria have been not met and we are therefore unable to consider your manuscript further.

- Author가 작성한 주제와 관련, 최소한의 reference searching을 하였는지?
- Something new를 보여주는 노력을 하였는지? 만약 이전 비슷한 finding이 있다면 제한점을 인지하였는지?
- 절대적인 Content의 양이 부족하지는 않은지?

✉ Jeong Uk Lim

Rejected | 12-Nov-23

Upon careful consideration, I recognize the clinical significance of your study. However, in its current form, the manuscript primarily offers a description of clinical characteristics. A deeper analysis focusing on risk factors is essential. This includes, but is not limited to, underlying skin diseases, rheumatologic and autoimmune conditions, or previous exposure to immune-related adverse events.

Given these considerations, and with our journal's scope and readership in mind, I regret to inform you that we are unable to accept your manuscript for publication at this time. This decision does not diminish the value of your work but rather reflects our specific editorial criteria and focus.

I believe your study could find a better fit with a journal whose scope more closely aligns with the current focus of your research. I encourage you to consider this feedback in refining your manuscript for submission to another suitable journal.

- 관련 연구에서 보는 공통적인 위험인자 및 필수적인 parameter를 충분히 보았는지?
- 만약 parameter를 보지 않았다면 제한점으로 인지 하고 있는지?

항목	세부
First impression	주제의 신선도 (제목, 초록)
	결국엔 사람이 하는 일.
	생각보다 많은 논문들을 짧은 시간안에 해결 해야함.
신뢰성/진실성	성의를 있게 작성되었는지?
	속이려고 하는 점은 없는지?
	Editor, reviewer 입장에서는 자기 career에 문제가 될만한 소지를 남기고 싶지 않음.

항목	세부
연구의 충실도	연구와 관련된 필수적인 parameter를 보았는가?
	연구와 관련된 주요 reference를 충분히 보았는가?
	적절한 통계분석을 시행하였는가?
Illustration/ Organization	읽었을 때 이해가 되는 논문인가?
	Figure나 table이 적절히 작성되었는가?

After rejection

Thank you for submitting your manuscript to Lung Cancer. We regret to advise that after careful consideration of your paper, it is felt not to be of sufficient interest to the readership to merit a detailed review and therefore we have decided not to publish your contribution in the journal.

We receive considerably more manuscripts than we have room to publish, so competition for space in the journal is intense. Although your contribution was not successful on this occasion, we hope that you will not be put off from considering Lung Cancer for future submissions.

Yours sincerely

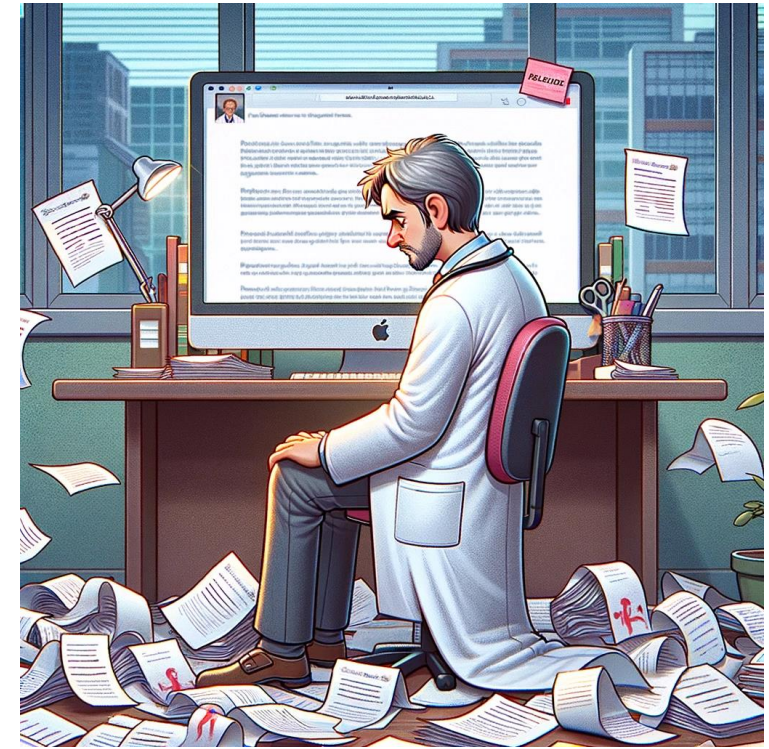
- 그 이후 조치

- 1) 논문의 scope의 문제 또는 단기간 극복이 어려운 연구의 제한점 (부족한 N수 등)

-> 큰 수정 없이 다음 저널에 제출

- 2) 반복적으로 언급되는 reject사유가 있다면, 교신저자와 상의하여 수정 후 완성도를 높여 제출하는 것이 다음 저널에서 accept될 확률이 높음

-> 리뷰어 또는 Editor 코멘트에 따른 수정 후 다른 저널 제출



5. 그 외



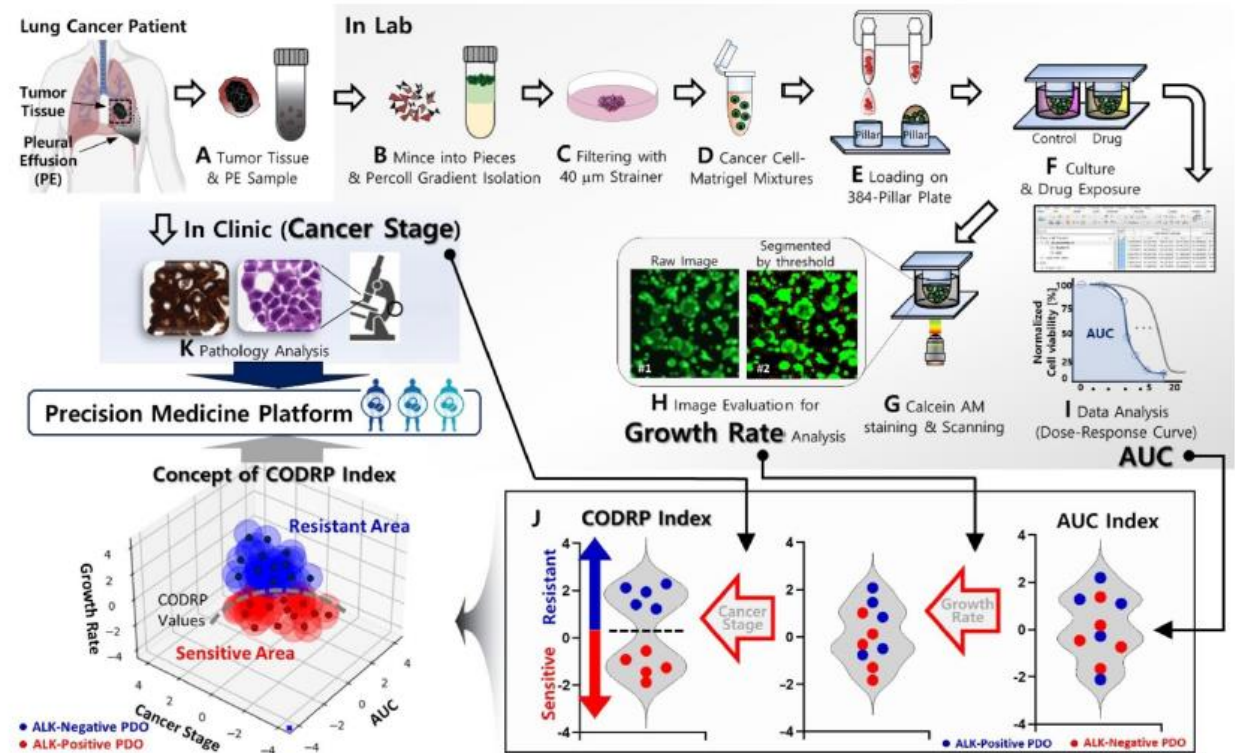
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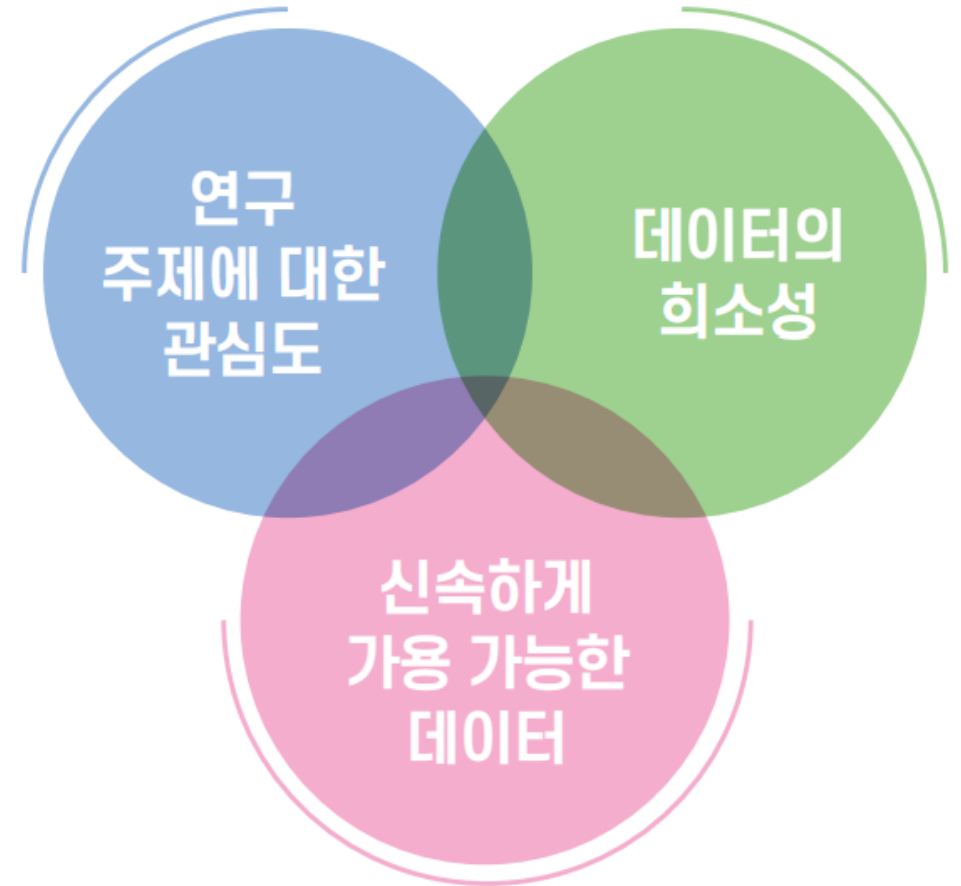
Cancer organoid-based diagnosis reactivity prediction (CODRP) index-based anticancer drug sensitivity test in ALK-rearrangement positive non-small cell lung cancer (NSCLC)

Sang-Yun Lee^{1,2†}, Hyeong Jun Cho^{3†}, Jimin Choi^{2†}, Bosung Ku², Seok Whan Moon⁴, Mi Hyung Moon⁴, Kyung Soo Kim⁴, Kwanyong Hyun⁴, Tae-Jung Kim⁵, Yeoun Eun Sung⁵, Yongki Hwang³, Eunyoung Lee³, Dong Hyuck Ahn³, Joon Young Choi⁶, Jeong Uk Lim⁷, Chan Kwon Park⁷, Sung Won Kim^{8,9}, Seung Joon Kim^{3,10}, In-Seong Koo¹, Woo Seok Jung¹, Sang-Hyun Lee^{2*}, Chang Dong Yeo^{11*} and Dong Woo Lee^{1*}



Impact 올리기

- 연구 아이디어에 대한 피드백
 - 1) 가까운 연구자와 토론
 - 2) 학회, 심포지움 Q&A
 - 3) 리뷰 논문 작성



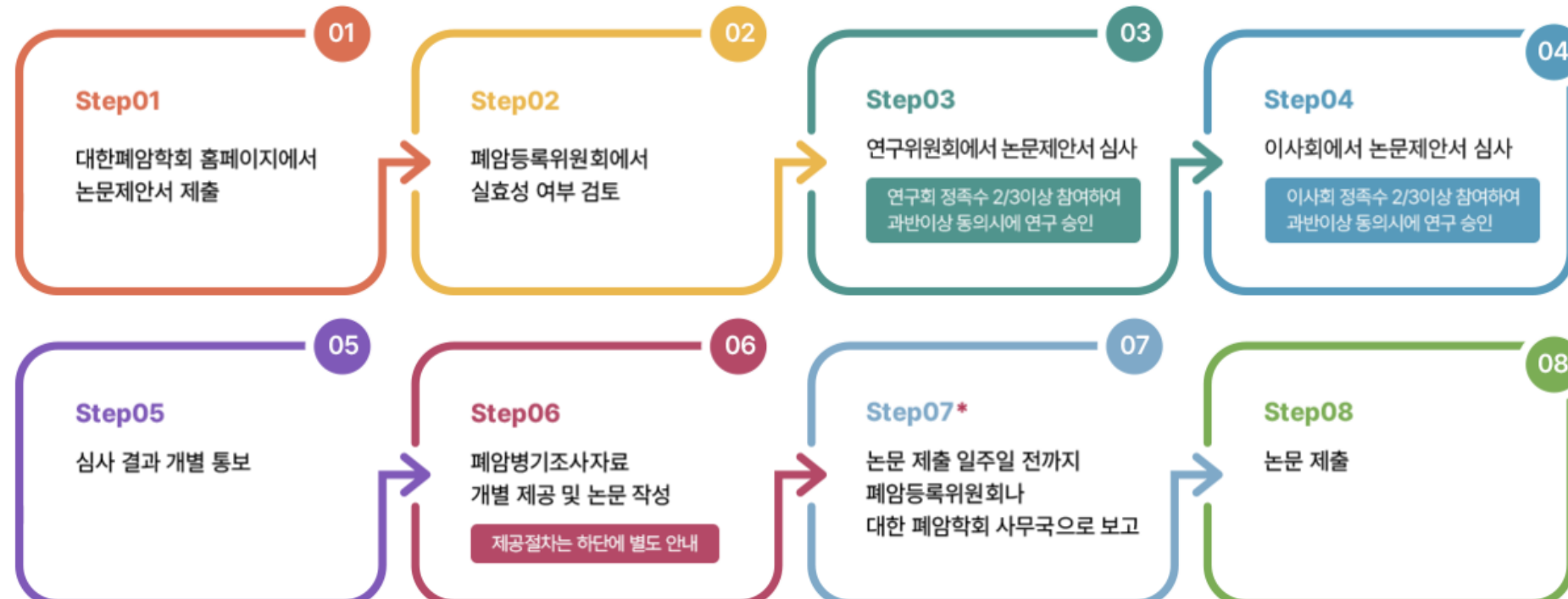
대한폐암학회 회원여러분께

대한폐암학회 폐암등록위원회는 중앙암등록본부와 함께 2014년부터 매년 폐암으로 진단되는 환자들 중 약 10%를 표본으로 추출하여 조사를 시행하는 '폐암병기조사자료'를 가지고 회원분들께 논문제안서를 공모하고 있습니다.

이에 회원 여러분의 많은 참여 바랍니다.

아래 사항에 따라 웹으로 제출하여 주시기 바라며 문의사항은 본 학회(02-741-8540, e-mail:kalc@lungca.or.kr) 로 연락 주시기 바랍니다.

폐암논문제안서 제출 및 심사 순서



Data Source: 폐암 등록 데이터

2019년 폐암병기 공개데이터 코드북				
소분류	변수명	유형	설명	예
조직학적 진단방법_8	h_method_8	문자	8.Bx from distant metastasis(Liver, Adrenal, Bone, Brain, Skin etc)	0 → Bx from distant metastasis 시행안함
조직학적 진단방법_9	h_method_9	문자	9.CTC/CT DNA	0 → CTC/CT DNA 시행안함
조직학적 진단방법_10	h_method_10	문자	10.영상만으로 진단	1 → 조직검사 없이 영상검사만으로 폐암진단 받음
조직학적 진단방법_11	h_method_11	문자	99.기타	0 → 기타 검사 시행안함
조직진단명_1	h_name_1	문자	1.Squamous cell carcinoma 계열	0 → Squamous cell carcinoma 계열 조직진단명 아님
조직진단명_2	h_name_2	문자	2.Adenocarcinoma 계열	1 → Adenocarcinoma 계열 조직진단명임
조직진단명_3	h_name_3	문자	3.Large cell carcinoma 계열	0 → Large cell carcinoma 계열 조직진단명 아님
조직진단명_4	h_name_4	문자	4.NSCLC_NOS	0 → NSCLC_NOS 조직진단명 아님
조직진단명_5	h_name_5	문자	5.Small cell carcinoma 계열	1 → Small cell carcinoma 계열 조직진단명임
조직진단명_6	h_name_6	문자	6.Carcinoid tumor 계열	0 → Carcinoid tumor 계열 조직진단명 아님
조직진단명_7	h_name_7	문자	9.기타	1 → 기타 진단명임
조직진단명_기타	h_name_t	문자	9. 기타 선택시 진단명 기술	Sarcomatoid carcinoma
EGFR mutation	egfr_mutation	문자	0.음성(-) 1.양성(+) 9.시행 안함	1 → EGFR(+)
EGFR (+)	egfrpos	문자	[EGFR_mutation]이 1.양성(+)인 경우 1. 19del 2. L858R 3. ETC	2 → L858R
기타 EGFR (+)	egfrpos_text	문자	[EGFR pos]가 '3. ETC' 인 경우 기타에 해당하는 변이 정보 입력	E20ins
ALK IHC	alk_ihc	문자	0.음성(-) 1.양성(+) 9.시행 안함	0 → ALK IHC(-)
ALK FISH	alk_fish	문자	0.음성(-) 1.양성(+) 9.시행 안함	1 → ALK FISH(+)
근치적 수술 시행 유무	treat_s	문자	0.No 1.Yes	1 → 근치적 수술 시행함

Thank you for your attention