Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Germany. **Methods:** This retrospective analysis of nationwide hospital discharge data in Germany between 2013 and 2016 comprises 121837 patients of whom 36051 (29.5%) underwent surgical anatomic resection. Hospital volumes were defined according to the number of patient resections for lung cancer in each hospital, and patients were categorized into 5 quintiles based on hospital caseload volume. A logistic regression model accounting for death according to sex, age, comorbidity, and resection volume was calculated, and effect modification was evaluated using the Mantel−Haenszel method. **Results:** In-house mortality ranged from 2.1% in very high-volume centers to 4.0% in very low-volume hospitals ($p<0.01$). In multivariable logistic regression analysis, lower in-house mortality in very high-volume centers performing > 140 anatomic lung resections per year was compared with very low-volume centers performing < 27 resections (OR, 0.58; CI, 0.46 to 0.72; $p<0.01$). This relationship also held for failure to rescue rates (12.9 vs 16.7%, $p=0.01$), although a greater number of extended resections were performed (23.1 vs. 14.8%, $p<0.01$). **Conclusion:** Hospitals with high volumes of lung cancer resections performed surgery with a higher ratio of complex procedures and achieved reduced in-house mortality, fewer complications, and lower failure to rescue rate. **Keywords:** mortality, lung cancer, HOSPITAL VOLUME

P09.11
Nutritional Risk Status Predicts Overall Survival of Mexican Patients with Advanced Non-Small-Cell Lung Cancer (NSCLC)

S. Campos-Gomez, J.J. Valdéz-Andrade, J. Esquivel-Gutierrez, E. Jaimes Alpizar, G. Pacheco-Cuellar, K. Campos-Gomez *Thoracic Oncology Unit, Centro Oncologico Estatal Issemym, Toluca de Lerdo/MX*

Introduction: The nutritional status has been a useful predictor of survival in various cancers. However, the utility of a new nutritional screening tool specifically for oncology patients (NUTRISCORE) to detect nutritional risk for malnutrition in patients with advanced non-small cell lung cancer has not been examined. The aim of this study was to assess nutritional risk for malnutrition status estimated by NUTRISCORE as prognostic factor in Mexican patients with advanced non-small cell lung cancer. **Methods:** We evaluated 126 patients with advanced lung cancer (IIIB and IV). Demographic and clinical data were collected. Nutritional risk status was estimated by NUTRISCORE at diagnosis in routine screening evaluation before systemic treatment and divided into risk and no risk groups. Kaplan-Meier survival analysis and the log-rank test were used to calculate OS. Univariate and multivariate analysis to identify variables associated with OS was assessed using Cox regression model. **Results:** A total of 126 elderly advanced lung cancer patients were included between 2013 and 2018. Among the included patients, the median age was 63.39 (range: 29-86 years), and 62 (49.2 %) patients were females and 64 (50.8 %) were males. Seventy one (56.3%) and 56(43.7%) patients were assigned to nutritional risk group and no risk group, respectively. Median overall survival (OS) was worse in the nutritional risk (risk vs no risk, 12.6 vs 46.6 months; p 0.000). In multivariate analysis, nutritional risk involuntary weight loss (p=0.020), and decreased appetite (p=0.001) were independent prognostic factors for OS. **Conclusion:** The assessment of NUTRISCORE risk could assist the identification of patients with advanced lung cancer with poor prognosis and a factor to attend in and probe in clinical trials. **Keywords:** nutrition risk, lung cancer, prognosis

P09.12
SARS- CoV2 Impact in a Spanish Lung Cancer Cohort?

B. Nunez-Garcia, B. Nuñez-Garcia, A. Morito, M. Martínez, C. Traseira, R. Aguado, Y. Garitaonaindía, G. Visedo, F. Franco, V. Calvo, M. Provencio *Medical Oncology, Hospital Puerta de Hierro (Majadahonda), Madrid/ES*

Introduction: Madrid has been the epicenter of the SARS-CoV2 pandemic in Spain. We analyzed our experience with SARS-CoV2 infection and cancer patients (p). **Methods:** The analysis was carried out from March 1 to April 30 at the Puerta de Hierro University Hospital in Madrid. All patients with diagnosis of SARS-CoV2 infection by RT-PCR were included. **Results:** During the study period, overall in-hospital mortality of cancer p with COVID-19 was 15.2% (95%CI, 6.3; 5.2), similar to 12.7% (95%CI,11.1;4.4) (p=0.615) of the global COVID-19 hospitalised population and greater than patients admitted without SARS-CoV-2 infection during the same period 4.3% (95%CI; 3.6;5.2) p<0.001. Among the 653 patients receiving active cancer therapy, 24 (3.7%) developed COVID-19 and required admission, 4.2% of those were receiving chemotherapy, 9.5% immunotherapy and 2.1% targeted therapies. Lung and breast cancer were the most frequent (26.1%), followed by colorectal (19.6%) and breast cancer. Non-significant differences were found due to the cancer treatment received. Mortality in patients with lung cancer was the highest with 25%. The univariate analysis comparing patients who developed a serious event to those who did not (Table2), showed that the higher Brescia, CURB-65 scale, the lactate dehydrogenase (LDH) or C-reactive protein (CRP) levels were at admission, the greater the risk of developing severe complications, with statistically significant results (table 2).

Table 1. General characteristics, symptoms at diagnosis and prognostic data.

VARIABLE	OTHER CANCER PATIENTS, N=34 (%)	LUNG CANCER PATIENTS, N=12 (%)	
Gender (male)	18 (52.9)	6 (50)	
Age at hospitalization, mean (sd)	63.9 (10.2)	63.5 (15.5)	
Active Smoking	0 (0.0)	2 (16.7)	
Ex-smokers	12 (35.3)	6 (50)	
COMORBIDITIES			
Coronary heart disease	3 (8.8)	2 (16.7)	
Hypertension	12 (35.3)	5 (41.7)	
Hypothyroidism	3 (8.8)	0 (0.0)	
COPD	3 (8.8)	2 (16.7)	
Obesity	2 (5.9)	0 (0.0)	
Diabetes	6 (17.7)	0 (0.0)	
Dyslipidemia	8 (23.5)	3 (25.0)	
LINES OF TREATMENT			
First line	18 (52.9)	5 (41.7)	
Other lines	8 (23.5)	5 (41.7)	
Pending treatment	8 (23.5)	2 (16.7)	
Recent cancer treatment <30d	11 (32.3)	8 (66.7)	
Active treatment	23 (67.6)	6 (50.0)	
Others	10 (30.3)	0 (0.0)	
SYMPTOMS	**OTHER CANCER PATIENTS (N=34)**	**LUNG CANCER PATIENTS (N=12)**	**p-value**
Neutropenia	2 (6.1)	0 (0.0)	1.000
Cough	23 (67.6)	5 (41.7)	0.170
Fever	26 (76.5)	9 (75.0)	0.918
Temperature	37.1 (1.0)	37.3 (1.1)	0.360
Dyspnoea	16 (47.0)	11 (91.7)	**0.007**
Diarrhoea	3(8.8)	1 (8.3)	1.000
Lymphopenia	22 (68.7)	4 (36.4)	0.080
PROGNOSTIC CRITERIA			
IL6			0.416
<4,4	28 (82.3)	8 (66.7)	
≥4,4	6 (17.7)	4 (33.3)	
D-DIMER	0.9 (0.6; 2.2)	0.9 (0.5; 2.7)	0.574
<0,5	5 (17.9)	3 (27.3)	0.761
0,5-7	22 (78.6)	8 (72.7)	
>7	1 (3.5)	0 (0.0)	
PCR		**107.7**	0.449
<10	7 (21.9)	1 (9.1)	
10-150	16 (50.0)	8 (72.7)	
>150	9 (28.1)	2 (18.2)	
LDH	266 (207; 326)	290 (238; 352)	0.195
<246	14 (46.7)	3 (27.3)	0.309
≥246	16 (53.3)	8 (72.7)	
FERRITIN	562 (358; 933)	1111 (392; 2672)	0.158
CHARLSON INDEX	8 (6; 9)	8 (6; 9)	0.800
CURB65 SCALE			0.314
0-1	21 (61.8)	5 (41.7)	
≥2	13 (38.2)	7 (58.3)	
BRESCIA SCALE			0.178
0-1	30 (88.2)	8 (66.7)	
≥2	4 (11.8)	4 (33.3)	

COPD: chronic obstructive pulmonary disease,Charlson index (Comorbidities), Curb65 scale (includes age, confusion, urea, breathing frequency, blood pressure), Brescia Scale (depends on oxygen needs). P-values: comparison between lung cancer patients and the other.

VARIABLE	N VALID (N=46)	NON-SERIOUS EVENT (N=38)	SERIOUS EVENT (N=8)	P-VALUE	OR (95% CI)
Gender (male)	46	20 (52.6)	4 (50.0)	0.892	0.9 (0.19; 4.14)
Age at hospitalization	40	63.2 (11.6)	67 (11.4)	0.376	1.04 (0.96; 1.21)
Active Smoking	46	2 (5.3)	0 (0.0)	1	—
Ex-smokers	46	16 (42.1)	2 (25.0)	0.453	0.46 (0.08; 2.57)
Hypertension	46	14 (36.8)	3 (37.5)	0.972	1.02 (0.21; 4.97)
COPD	46	4 (10.5)	1 (12.5)	0.871	1.21 (0.12; 12.57)
Dyslipidaemia	46	10 (26.3)	1 (12.5)	0.418	0.40 (0.04; 3.67)
Higher ferritin	26	598 (382; 1111)	975 (903; 2403)	0.396	1.00 (0.99; 1.00)
Higher IL6 ≥4,4	46	8 (21.1)	3 (37.5)	0.330	2.2 (0.44; 11.48)
Higher D- Dimer	41	1.1 (0.7; 2.2)	2.6 (1.5; 5.6)	0.069	1.39 (0.97; 1.99)
First LDH	41	254 (195; 316)	354 (266; 441)	**0.020**	1.01 (1.00; 1.03)
Higher LDH	40	271 (227; 332)	619 (354; 812)	**0.007**	1.01 (1.00; 1.03)
First CRP	43	95 (11; 146)	169 (89; 228)	**0.038**	1.01 (1.00; 1.02)
Higher CRP	42	116 (43; 167)	202 (130; 249)	**0.018**	1.02 (1.00; 1.03)
Brescia	44	0.5 (0; 1)	2 (2; 5)	**0.004**	19.5 (2.54; 149.7)
CURB-65	42	1 (1; 2)	2 (1; 3)	**0.060**	2.41 (0.97; 6.03)

Conclusion: Cancer patients, especially lung ones, and SARS-CoV2 infection have a worse overall prognosis than the general population. Objective parameters such as LDH, CRP at admission, Brescia index or CURB-65 should alert us to a more serious evolution and suggest early an early intensive care unit (ICU) admission. **Keywords:** SARS-CoV2, lung cancer, prognosis

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P09.13

Bone Metastases and Overall Survival in Patients with Metastatic Non-Small Cell Lung Cancer Treated with Pembrolizumab

P. Das,[1] S. Zhao,[2] L. Wei,[2] A. Miah,[2] M. Li,[2] G. Lopez,[1] S. Patel,[2] A. Johns,[1] M. Grogan,[3] E. Bertino,[2] K. He,[2] P. Shields,[2] D. Carbone,[2] G. Otterson,[2] C. Presley,[2] D. Owen[3] *[1]Ohio State University Wexner Medical Center, Columbus/OH/US, [2]Department of Internal Medicine, Division of Medical Oncology, The Ohio State University Comprehensive Cancer Center, Columbus/OH/US, [3]Medical Oncology, The Ohio State University Comprehensive Cancer Center, Columbus/OH/US*

Introduction: Bone metastases (BM) and skeletal-related events (SRE) are a common cause of morbidity in patients with metastatic non-small cell lung cancer (mNSCLC). Data on the impact of BM on overall survival (OS) in patients treated with immune checkpoint inhibitors (ICI) is limited. Here we report the incidence, impact on survival, and risk factors for SRE in patients with mNSCLC treated with first-line pembrolizumab monotherapy or pembrolizumab plus chemotherapy. **Methods:** We conducted a retrospective study of patients with mNSCLC treated with first-line pembrolizumab or pembrolizumab plus chemotherapy at our institution from 2017-2020. The associations between SRE and categorical variables were studied using Fisher's exact test and with continuous variables using the Kruskal-Wallis test. Kaplan-Meier plots were used to visualize survival curves. The association between baseline BM and OS was examined using a Cox proportional hazard model. OS was calculated from date of ICI initiation to death from any cause or last follow-up. **Results:** We identified a cohort of 202 patients: 93 (46%) treated with pembrolizumab and 109 (54%) treated with pembrolizumab plus chemotherapy; 39 (19%) had squamous histology and 163 (81%) had nonsquamous histology; median age 62.7; median OS 33.7 months (95% CI: 17.2 — NR). In our cohort, 87 (43%) patients had BM at time of ICI initiation and 47 (23%) developed SRE after ICI initiation. Patients who developed SRE were more likely to have baseline BM than those without SRE (91.5% vs 28.4%, $p<0.001$). Development of BM during treatment with ICI and performance status were also significantly associated with SRE ($p<0.001$ and $p=0.006$, respectively). Patients with BM at time of ICI, or development of new or progression of existing BM while on ICI, had shorter survival than those without (Figure 1a and Figure 1b, respectively). In multivariate survival analysis, the hazard of death for patients with baseline BM was 2.85 times those without (HR=2.85, 95% CI: 1.53, 5.29, p-value=0.0009) after controlling for age, BMI, performance status, histology, PD-L1 expression, smoking, and SRE. The use of bone-modifying agents (BMA) was not associated with OS, osseous progression, or risk of SRE.

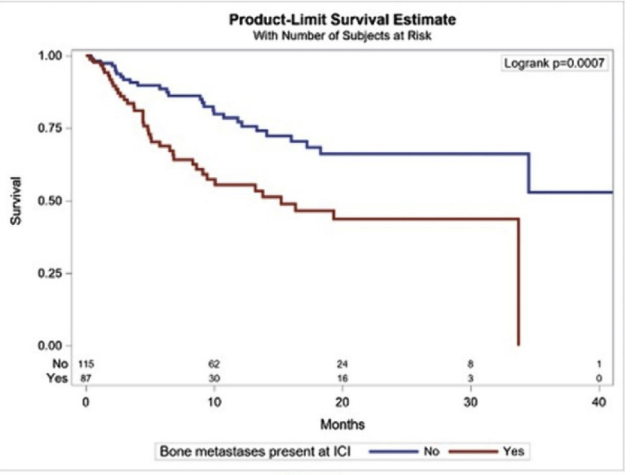

Figure 1a

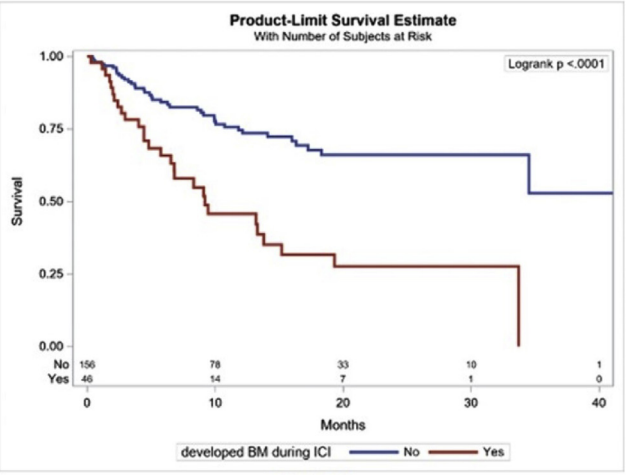

Figure 1b

Conclusion: The presence of BM at time of ICI was associated with shorter survival after controlling for multiple clinical characteristics. These patients represent a high-risk cohort for worse outcomes when treated with ICI alone or in combination with chemotherapy. In our cohort BMA were not associated with increased OS or decreased risk of osseous progression or SRE. **Keywords:** NSCLC, Skeletal Related Events, Immune checkpoint inhibitors