

333P Efficacy and safety of immune checkpoint inhibitors alone or combined with chemotherapy in pulmonary sarcomatoid carcinoma

H. Kaneda¹, D. Hazama², H. Kodama³, A. Miyazaki⁴, K. Azuma⁵, Y. Kawashima⁶, Y. Sato⁷, K. Ito⁸, Y. Shiraishi⁹, K. Miura¹⁰, T. Takahama¹¹, S. Oizumi¹², Y. Namba¹³, S. Ikeda¹⁴, S. Miura¹⁵, M. Tachihara¹⁶

¹Clinical Oncology Department, Osaka Metropolitan University Graduate School of Medicine, Osaka, Japan; ²Division of Respiratory Medicine, Department of Internal Medicine, Kobe University Hospital, Kobe, Japan; ³Thoracic Oncology, Shizuoka Cancer Center, Shizuoka, Japan; ⁴Department of Respiratory Medicine and Medical Oncology, National Hospital Organization Toneyama Hospital, Toyonaka, Japan; ⁵Department of Respiratory Medicine, Kurume University, Kurume, Japan; ⁶Pulmonary Medicine, Sendai Kousei Hospital, Sendai, Japan; ⁷Department of Respiratory Medicine, Kobe City Medical Center General Hospital, Kobe, Japan; ⁸Respiratory Center Dept., Matsusaka City Hospital, Matsusaka, Japan; ⁹Department of Respiratory Medicine, Kyushu University Hospital, Fukuoka, Japan; ¹⁰Department of Respiratory Medicine, Juntendo University Graduate School of Medicine, Tokyo, Japan; ¹¹Kindai University Hospital, Osaka, Japan; ¹²Department of Respiratory Medicine, Hokkaido Cancer Center, Sapporo, Japan; ¹³Respiratory Medicine, Takarazuka City Hospital, Takarazuka, Japan; ¹⁴Department Of Respiratory Medicine, Kanagawa Cardiovascular and Respiratory Center, Yokohama, Japan; ¹⁵Department Of Internal Medicine, Niigata Cancer Center Hospital, Niigata, Japan; ¹⁶Division of Respiratory Medicine, Department of Internal Medicine, Kobe University Graduate School of Medicine, Kobe, Japan

Background: Pulmonary sarcomatoid carcinoma (PSC) is a rare subtype of lung cancer, associated with a worse prognosis and resistance to platinum-based chemotherapy. Immune checkpoint inhibitors (ICI) alone or in combination with chemotherapy are the standard of care for non-small cell lung cancer, yet the benefit of ICI in patients with PSC remains unclear.

Methods: This multicenter retrospective study evaluated patients with advanced or recurrent PSC treated with ICI included therapy between Dec 2015 and Sep 2021. Patients were divided into three cohorts: cohort A (ICI plus chemotherapy as first-line therapy), cohort B (ICI as first-line therapy), and cohort C (ICI as second- or later-line therapy). Clinical efficacy and immune-related adverse events (irAEs) were evaluated.

Results: A total of 124 patients were included. The patients' characteristics were as follows: male/female, 97/27; median age (range), 69 (35-84); PS 0-1/≥2, 103/21; advanced/recurrent, 76/48. Most patients had pleomorphic carcinoma (n = 92, 74.2%) and tumor PD-L1 expression ≥50% (n = 81, 65.3%). The overall response rate (ORR), median progression-free survival (PFS), and median overall survival (OS) were 59.0%, 10.5 months, and 32.8 months, respectively. Similar results were observed regardless of tumor PD-L1 expression. The PFS and OS rates at 24 months were 35.3% and 51.5%. There was no significant difference in the ORR, PFS, or OS between the three cohorts (Table). irAEs were observed in 67 patients (54.0%), including 27 patients (21.8%) with grade 3-5 events. Patients with grade 1-2 irAEs showed higher ORR, longer PFS and OS than those with no irAEs or grade 3-5 irAEs.

Table: 333P

Cohort	N	ORR (%) (95% CI)	PFS (months) (95% CI)	OS (months) (95% CI)
A	40	66.7 (49.0 - 81.4)	9.2 (5.8 - 22.4)	24.9 (15.7 - NA)
B	56	56.6 (42.3 - 70.2)	11.2 (5.6 - 37.7)	20.1 (10.5 - NA)
C	28	53.6 (33.9 - 72.5)	12.0 (3.4 - NA)	44.0 (7.2 - NA)

Conclusions: ICI therapy for PSC showed promising efficacy regardless of the treatment line and PD-L1 expression.

Legal entity responsible for the study: The authors.

Funding: Has not received any funding.

Disclosure: H. Kaneda: Financial Interests, Personal, Speaker's Bureau: Chugai Pharmaceutical Co., Ltd., AstraZeneca K.K., MSD K.K., Ono Pharmaceutical Co., Ltd., Bristol Myers Squibb Co. Ltd., Pfizer, Novartis pharm, Nippon Boehringer Ingelheim Co., Ltd., Taiho Pharmaceutical Co., Ltd.; Financial Interests, Personal, Funding: Eli Lilly Japan K.K. H. Kodama: Financial Interests, Personal, Speaker's Bureau: Chugai Pharmaceutical Co. Ltd, Boehringer Ingelheim. A. Miyazaki: Financial Interests, Institutional, Research Grant: ONO Pharmaceutical Co., Ltd., Chugai Pharmaceutical Co., Ltd., MSD K.K., Delta-Fly Pharma, Inc. K. Azuma: Financial Interests, Personal, Invited Speaker: AstraZeneca, Bristol Myers Squibb, Ono Pharmaceutical, Takeda Pharmaceutical, Chugai Pharmaceutical, Pfizer, MSD. Y. Kawashima: Financial Interests, Personal, Speaker's Bureau: Eli Lilly and Company, Chugai Pharmaceutical, Taiho Pharmaceutical, AstraZeneca. Y. Sato: Financial Interests, Personal, Speaker's Bureau: AstraZeneca, MSD, Novartis, Chugai Pharmaceutical, Ono Pharmaceutical, Pfizer, Taiho Pharmaceutical, Nippon Kayaku, Bristol Myers Squibb, Eli Lilly, Takeda, Kyowa Kirin. K. Ito: Financial Interests, Personal, Speaker's Bureau: Eli Lilly, Takeda Pharmaceutical, Boehringer Ingelheim, Chugai Pharmaceutical, MSD, Taiho Pharmaceutical, AstraZeneca, Ono Pharmaceutical, Pfizer. Y. Shiraishi: Financial Interests, Personal, Invited Speaker: Chugai Pharma, Ono Pharmaceutical, Bristol Myers Squibb Company, AstraZeneca, Taiho Pharmaceutical; Non-Financial Interests, Personal, Principal Investigator: Chugai Pharma. K. Miura: Financial Interests, Personal, Invited Speaker: Chugai Pharmaceutical, Taiho Pharmaceutical. S. Oizumi: Financial Interests, Personal, Invited Speaker: AstraZeneca; Financial Interests, Institutional, Research Grant: AbbVie, Amgen, AstraZeneca, Bristol Myers Squibb, Chugai Pharmaceutical, MSD, Pfizer, Sanofi, Taiho Pharmaceutical, Takeda Pharmaceutical. Y. Namba: Financial Interests, Personal, Invited Speaker: Bristol Myers Squibb, AstraZeneca, Chugai pharmaceutical, Boehringer Ingelheim; Financial Interests, Institutional, Invited Speaker: MSD, AbbVie. S. Ikeda: Financial Interests, Personal, Invited Speaker: AstraZeneca, Chugai, Bristol Myers Squibb, Ono, Taiho, Eli Lilly, Pfizer, Boehringer Ingelheim. S. Miura: Financial Interests, Personal, Invited Speaker: Chugai Pharmaceutical, Taiho Pharmaceutical, Ono Pharmaceutical, AstraZeneca, Bristol Myers Squibb, Eli Lilly, Boehringer Ingelheim Japan, Pfizer, Novartis, MSD, Kyowa Hakko Kirin,

Daiichi Sankyo, AbbVie, Nippon Kayaku, Amgen, Merck, Takeda Pharmaceutical. M. Tachihara: Financial Interests, Personal, Invited Speaker: Eli Lilly Japan K.K., Chugai Pharmaceutical Co., Ltd., AstraZeneca K.K., MSD K.K., Ono Pharmaceutical Co., Ltd., Bristol Myers Squibb Co. Ltd.; Financial Interests, Personal and Institutional, Research Grant: AstraZeneca K.K. All other authors have declared no conflicts of interest.

<https://doi.org/10.1016/j.annonc.2022.10.371>

334P Patient-reported outcomes with cemiplimab versus chemotherapy in advanced non-small cell lung cancer (aNSCLC): Geographic region subgroups in EMPOWER-Lung 1

G.F. Ho¹, A. Sezer², S. Kilickap³, M. Gumus⁴, I. Bondarenko⁵, M. Ozguroglu⁶, M. Gogishvili⁷, X. He⁸, G. Gullo⁸, P. Rietschel⁸, R.G. Quek⁸

¹Department of Clinical Oncology, Universiti Malaya Medical Centre, Kuala Lumpur, Wilayah Persukutuan, Malaysia; ²Department of Medical Oncology, Başkent University, Adana, Turkey; ³Department of Medical Oncology, Istinye University Faculty of Medicine, Istanbul, Turkey; ⁴Department of Medical Oncology, School of Medicine, Istanbul Medeniyet University, Istanbul, Turkey; ⁵Department of Oncology and Medical Radiology, Dnipropetrovsk Medical Academy, Dnipro, Ukraine; ⁶Cerrahpaşa Medical Faculty, Istanbul University-Cerrahpaşa, Istanbul, Turkey; ⁷High Technology Medical Centre, University Clinic Ltd, Tbilisi, Georgia; ⁸Clinical Sciences, Oncology, Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA

Background: Previously reported subgroup analysis of EMPOWER-Lung 1 (NCT03088540), a randomised 1:1 open-label Phase 3 study, showed overall survival improvement trends with cemiplimab monotherapy (CEMI, n=283) versus platinum-doublet chemotherapy (CHEMO, n=280) in geographic region subgroups (Europe: hazard ratio [HR] 0.54, 95% confidence interval [CI] 0.39–0.77; Asia: HR 0.76, 95% CI 0.24–2.41; rest of world [ROW]: HR 0.59, 95% CI 0.26–1.33) in patients with aNSCLC and programmed cell death-ligand 1 (PD-L1) ≥50%. With post-hoc exploratory analyses, patient-reported outcomes (PROs) were also evaluated in these three subgroups.

Methods: PROs were assessed at baseline and Day 1 of each treatment cycle for the first 6 cycles, then on Day 1 of every third cycle using the European Organisation for Research and Treatment of Cancer Quality of Life-Core 30 (QLQ-C30) and Lung Cancer Module (QLQ-LC13) questionnaires. Mixed-model for repeated measures analyses compared overall change from baseline scores between the two treatment arms while controlling for baseline characteristics.

Results: Baseline PRO scores were broadly similar between treatment arms across geographical regions. A statistically significant difference in overall change from baseline in global health status/quality of life favoured CEMI versus CHEMO in two subgroups (Asia: 12.61, 95% CI 4.44–20.77, P=0.0032; ROW: 9.09, 95% CI 0.89–17.29, P=0.0305). CEMI led to statistically significant favourable differences in all three subgroups in nausea/vomiting and constipation symptoms and in Europe and Asia subgroups in physical and role functioning, fatigue, and appetite loss symptoms per QLQ-C30, and alopecia per QLQ-LC13. When comparing between treatment arms, no analyses yielded statistically significant PRO results favouring CHEMO on any QLQ-C30 or QLQ-LC13 scale.

Conclusions: In patients with aNSCLC and PD-L2 ≥50% across three geographic region subgroups, CEMI led to significant overall improvement in multiple patient-reported cancer-related and lung cancer-specific functions and symptoms. Positive PRO results further support the favourable benefit-risk profile of CEMI versus CHEMO across these subgroups.

Clinical trial identification: NCT03088540.

Editorial acknowledgement: Medical writing support was provided by Daniel M Himmel, PhD, of Prime, Knutsford, UK, funded by Regeneron Pharmaceuticals, Inc., and Sanofi. Responsibility for all opinions, conclusions, and data interpretation lies with the authors.

Legal entity responsible for the study: Regeneron Pharmaceuticals, Inc., and Sanofi.

Funding: Regeneron Pharmaceuticals, Inc., and Sanofi.

Disclosure: G.F. Ho: Financial Interests, Personal, Advisory Board: AstraZeneca. A. Sezer: Financial Interests, Personal, Research Grant: Roche, Merck Sharp & Dohme, Merck Serono, AstraZeneca, Lilly, Novartis, Johnson & Johnson, Regeneron Pharmaceuticals, Inc., and Sanofi. M. Gumus: Financial Interests, Personal, Advisory Role: Roche, Merck Sharp & Dohme, Gen ilaç and Novartis. M. Ozguroglu: Financial Interests, Personal, Advisory Role: Novartis, Roche, Janssen, Sanofi and Astellas; Financial Interests, Personal, Advisory Board: Janssen, Sanofi and Astellas; Financial Interests, Personal, Other, travel support: Bristol Myers Squibb, Janssen and AstraZeneca; Financial Interests, Personal, Speaker's Bureau: AstraZeneca. X. He, G. Gullo, P. Rietschel, R.G. Quek: Financial Interests, Personal, Full or part-time Employment: Regeneron Pharmaceuticals, Inc.; Financial Interests, Personal, Stocks/Shares: Regeneron Pharmaceuticals, Inc. All other authors have declared no conflicts of interest.

<https://doi.org/10.1016/j.annonc.2022.10.372>