Tepotinib in NSCLC patients with *MET* exon 14 skipping: health-related quality of life

Paul K. Paik,[1] Leora Horn,[2] Dariusz Kowalski,[3] Jyoti Patel,[4] Frank Griesinger,[5] Ji-Youn Han,[6] Egbert Smit,[7] Terufumi Kato,[8] Xiuning Le,[9] Jürgen Scheele,[10] Rolf Bruns,[11] Helene Vioix,[12] Boris M. Pfeiffer,[12] Byoung Chul Cho[13]

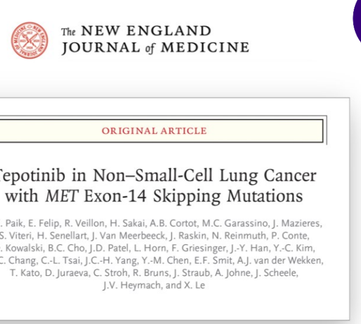
[1]Thoracic Oncology Service, Memorial Sloan Kettering Cancer Center, New York, NY, USA (paikp@mskcc.org); [2]Department of Medicine, Vanderbilt Ingram Cancer Center, Nashville, TN, USA; [3]Department of Lung Cancer and Thoracic Oncology, Maria Sklodowska-Curie National Research Institute of Oncology, Warsaw, Poland; [4]Lurie Cancer Center, Northwestern University-Feinberg School of Medicine, Chicago, IL, USA; [5]Pius-Hospital, University Medicine Oldenburg, Department of Hematology and Oncology, University Department Internal Medicine-Oncology, 26121, Oldenburg, Germany; [6]Center for Lung Cancer, National Cancer Center, Goyang, Republic of Korea; [7]Netherlands Cancer Institute, Amsterdam, The Netherlands; [8]Department of Thoracic Oncology, Kanagawa Cancer Center, Yokohama 241-8515, Japan; [9]Department of Thoracic Head and Neck Medical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, USA; [10]Global Clinical Development, Merck KGaA, Darmstadt, Germany; [11]Department of Biostatistics, Merck KGaA, Darmstadt, Germany; [12]Global Evidence and Value Development, Merck KGaA, Darmstadt, Germany; [13]Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea

CONCLUSIONS

- **In patients with advanced NSCLC with *MET* exon 14 skipping, treatment with tepotinib results in a meaningful improvement in symptoms of cough**
- **Symptoms of dyspnea and chest pain remained stable during the 24-week analysis**
- **Patient quality of life remained stable, with no meaningful change in QLQ-C30 or EQ-5D-5L scores**
- **These findings, coupled with the efficacy and safety profile from the VISION study, support tepotinib as a promising treatment option in patients with *MET* exon 14 skipping**
- **This is the first analysis of health-related quality of life in this patient population, who are typically elderly with a poor prognosis**

INTRODUCTION

- The oncogenic driver *MET* exon 14 skipping occurs in 3–4% of patients with non-small cell lung cancer (NSCLC)[1–4]
- Tepotinib is an oral, once-daily, highly selective MET tyrosine kinase inhibitor that blocks MET-mediated signaling pathways involved in tumorigenesis[5]
- In the Phase II VISION study (NCT02864992), tepotinib has shown promising efficacy across treatment lines in patients with advanced NSCLC with *MET* exon 14 skipping (poster 322);[6] **results are published online in New England Journal of Medicine (May 2020)**
  - The objective response rate by independent review was 46.5–50.0% and by investigator assessment was 55.6–61.7%; onset of response was mostly within 2–3 months with a long median duration of response of up to 15.7 months[6]
  - Results from this study have led to regulatory approval of tepotinib and its companion diagnostic in Japan in March 2020
- NSCLC patients with *MET* exon 14 skipping are older than those with other actionable molecular alterations;[7-9] median age was 74 years in VISION study.[6] For older patients, treatment effects on symptoms and functioning may be particularly important
- Here, we present the first analysis of health-related quality of life (HRQoL) patient-reported outcomes (PROs) from patients with NSCLC *MET* exon 14 skipping in the VISION study



METHODS

- VISION Cohort A enrolled patients with locally advanced or metastatic NSCLC with *MET* exon 14 skipping. Patients were EGFR/ALK wild type and had ≤2 lines of prior therapy and received oral tepotinib 500 mg once daily until intolerable toxicity or disease progression
- PROs were assessed using the following:
  - European Organisation for Research and Treatment of Cancer Quality of Life Lung Cancer-13 questionnaire (EORTC QLQ-LC13).[10] Cough, dyspnea and chest pain were pre-defined items of interest
  - European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire Core 30 (EORTC QLQ-C30) global health status (GHS) and 5 functional scales[11]
  - EuroQol Five Dimension Five Level Scale (EQ-5D-5L) questionnaire and Visual Analog Scale (VAS)[12]
- Results were scored from 0 to 100
  - A change of ≥10 points from baseline was considered to be the minimal clinically important difference
- Questionnaires were completed at baseline and every 6 weeks

RESULTS

- At data cut-off (01 January, 2020), 99 patients with at least 9 months' follow up had been enrolled and were analyzed for HRQoL
  - Patients were mostly older (median age 74.0 years) with an ECOG PS of 1 (77%), half were smokers (47%), and almost all had metastatic disease (97%) at study entry[6]
- Questionnaire completion rate was high (**Table 1**)

Table 1. Questionnaire completion rate at baseline and over time

Time	Number of patients on treatment	Completion rates; n (%)		
		EORTC QLQ-LC13	EORTC QLQ-C30	EORTC EQ-5D-5L
Baseline	99	86 (86.9%)	86 (86.9%)	86 (86.9%)
Week 6	86	72 (83.7%)	72 (83.7%)	72 (83.7%)
Week 12	76	68 (89.5%)	68 (89.5%)	68 (89.5%)
Week 18	68	62 (91.2%)	62 (91.2%)	61 (89.7%)
Week 24	59	50 (84.7%)	50 (84.7)	50 (84.7%)

EORTC, European Organisation for Research and Treatment of Cancer; QLQ-LC13, Quality of Life Questionnaire – Lung Cancer Module; QLQ-LC30, Quality of Life Questionnaire – Core Questionnaire; EQ-5D-5L, EuroQol – 5 Dimension – 5 Level; VAS, visual analog scale.

- Baseline scores showed moderate-to-high functioning and quality of life and moderate lung cancer symptom burden (**Table 2**)

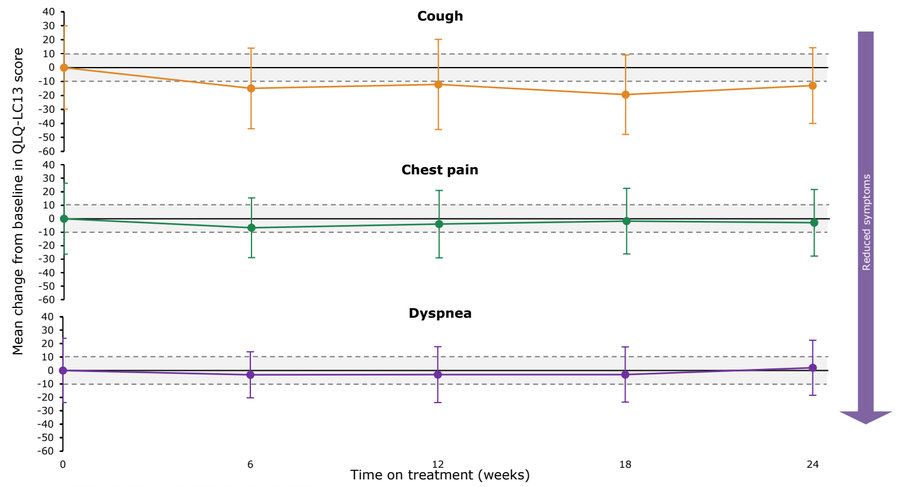
Table 2. Baseline symptom burden

	Mean (SD)
EORTC QLQ-LC13 symptom scores *Lower scores indicate milder symptoms (scale 0–100)*	
Cough	38.0 (29.9)
Dyspnea	30.9 (23.9)
Chest pain	19.4 (26.3)
EORTC QLQ-C30 patient functioning scales *Higher scores indicate greater functioning (scale 0–100)*	
Global health score	53.7 (23.7)
Functional scales	
Physical	70.6 (23.6)
Role	64.1 (32.8)
Cognitive	69.4 (23.5)
Emotional	77.9 (23.8)
Social	71.7 (29.4)
EQ-5D-5L *Higher scores indicate greater functioning (scale 0–100)*	
VAS	59.0 (20.6)

EORTC, European Organisation for Research and Treatment of Cancer; QLQ-LC13, Quality of Life Questionnaire – Lung Cancer Module; QLQ-LC30, Quality of Life Questionnaire – Core Questionnaire; EQ-5D-5L, EuroQol – 5 Dimension – 5 Level; SD, standard deviation; VAS, Visual Analog Scale.

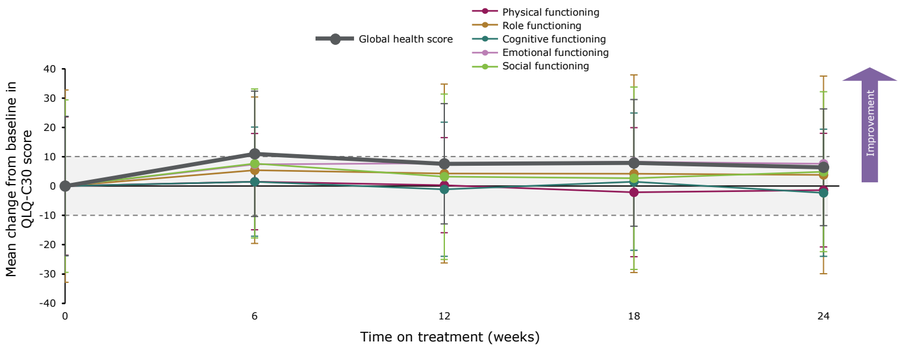
- For the QLQ-LC13 symptoms, mean changes from baseline indicated a meaningful improvement in coughing, with a time to improvement paralleling the onset of objective response (within first 3 months), and a numerical improvement in dyspnea (–3.1 at Week 12) and chest pain (–4.0 at Week 12) (**Figure 1**)
- Mean changes from baseline in QLQ-C30 global health and functional scale scores and EQ-5D-5L VAS scores demonstrated stability in patient quality of life over time (**Figure 2 and 3**)

Figure 1. Mean change from baseline in EORTC QLQ-LC13 cough, dyspnea, and chest pain symptom scores



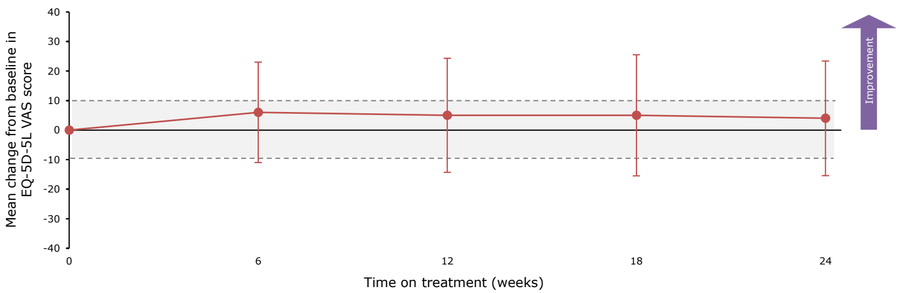
An increase or decrease of >10 points was considered to be clinically meaningful (shaded area). EORTC, European Organisation for Research and Treatment of Cancer; QLQ-LC13, Quality of Life Questionnaire - Lung Cancer Module.

Figure 2. Mean change from baseline in EORTC QLQ-C30 global health score and subscales



An increase or decrease of >10 points was considered to be clinically meaningful (shaded area). EORTC, European Organisation for Research and Treatment of Cancer; QLQ-C30, Quality of Life Questionnaire – Core Questionnaire.

Figure 3. Mean change from baseline in EQ-5D-5L VAS scores



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