

P2.007-248: MET Amplification vs MET Exon 14 Skipping: Clinicopathologic Characteristics in Non-Small Cell Lung Cancer (NSCLC)

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INTRODUCTION

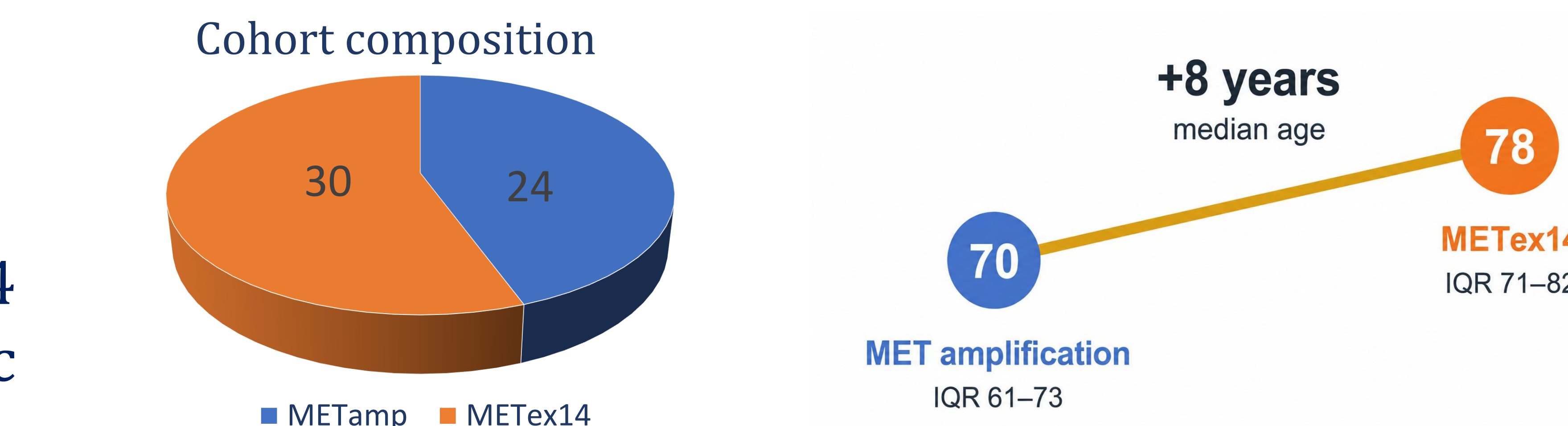
- MET amplification (METamp) and MET exon 14 skipping (METex14) are actionable oncogenic alterations in NSCLC
- Their clinicopathologic differences remain incompletely characterized, complicating patient selection and treatment interpretation

OBJECTIVE

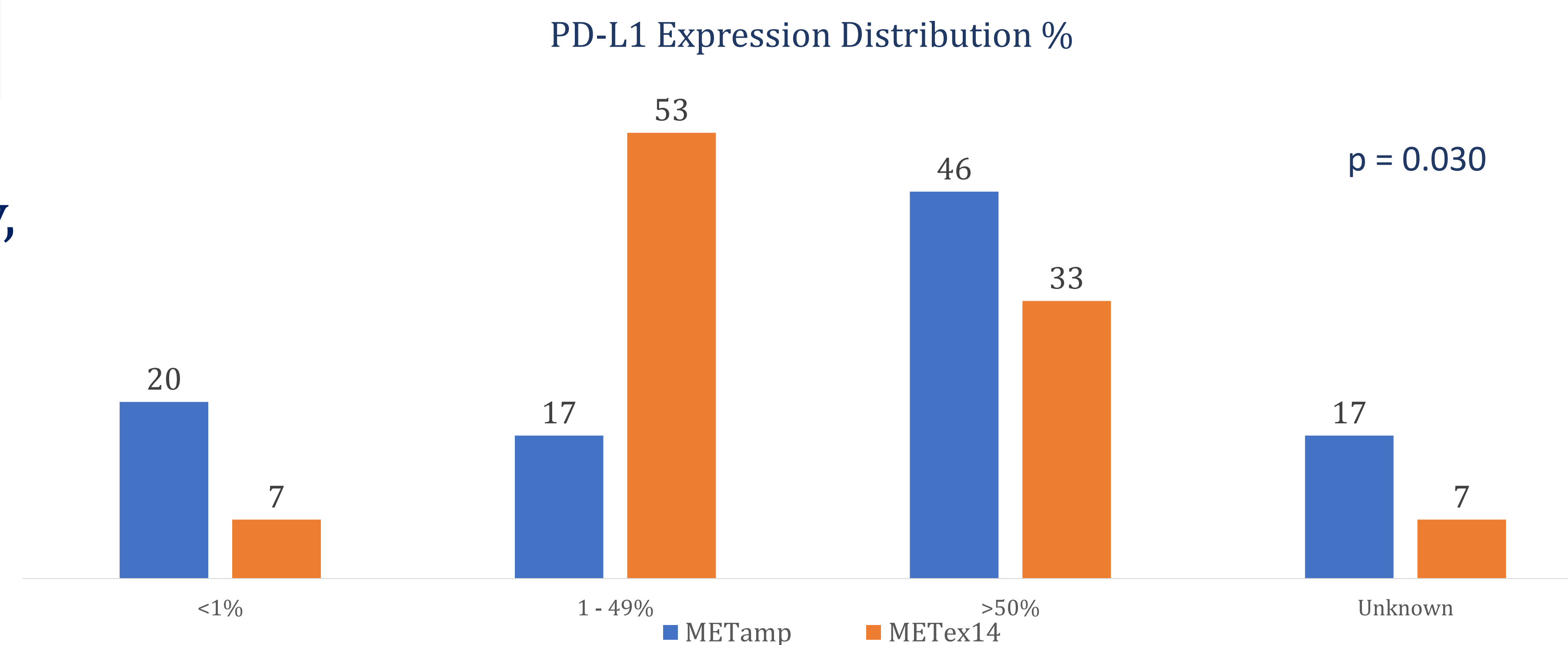
- To compare baseline characteristics and PD-L1 expression between patients with MET amplification and MET exon 14 skipping mutation

METHODS

- Single-institution retrospective analysis of the Foundation Medicine genomic database over 10 years
- Compared patients with MET amplification (≥ 6 copies) versus MET exon 14 skipping mutations
- Evaluated demographics, smoking history, histology, and PD-L1 expression between both cohorts
- Used the Mann–Whitney U test for continuous variables and Fisher’s exact test for categorical variables



Variable	METamp	METex14	p-value
Sex, n (%)			0.78
Male	11 (45.8)	12 (40.0)	
Female	13 (54.2)	18 (60.0)	
Race, n (%)			0.032
White	9 (37.5)	22 (73.3)	
Black	8 (33.3)	5 (16.7)	
Asian	3 (12.5)	1 (3.3)	
Other	0	1 (3.3)	
Unknown	4 (16.7)	1 (3.3)	
Smoking history, n (%)			0.27
Yes	17 (70.8)	21 (70.0)	
No	5 (20.8)	9 (30.0)	
Unknown	2 (8.3)	0	
Histology, n (%)			0.74
Adenocarcinoma	19 (79.2)	21 (70.0)	
Squamous	3 (12.5)	5 (16.7)	
Unknown	2 (8.3)	4 (13.3)	



RESULTS

- Patients with METex14 were older than those with METamp (median age, 78 vs 70 years; p=0.0003)
- Race distribution differed significantly between cohorts, with a higher proportion of White patients in the METex14 group (73.3% vs 37.5%; p=0.032)
- PD-L1 expression also differed significantly (p=0.030); METamp was associated with more PD-L1 $\geq 50\%$, whereas METex14 was enriched for PD-L1 1–49%
- No significant differences were observed in sex, ethnicity, smoking history, or histology

CONCLUSIONS

- METamp and METex14 were associated with distinct clinicopathologic profiles in this single-institution cohort
- METex14 was associated with older age and a higher proportion of White patients
- METamp was associated with a different PD-L1 distribution, including a numerically higher proportion with PD-L1 $\geq 50\%$
- These hypothesis-generating findings require validation in larger cohorts before influencing treatment selection

REFERENCES

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- Liu L, et al.) Prognosis and Concurrent Genomic Alterations in Patients With Advanced NSCLC Harboring MET Amplification or MET Exon 14 Skipping Mutation Treated With MET Inhibitor: A Retrospective Study. Front. Oncol. (2021) 11:649766

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- No artificial intelligence (AI) tools were used in the preparation of this poster