

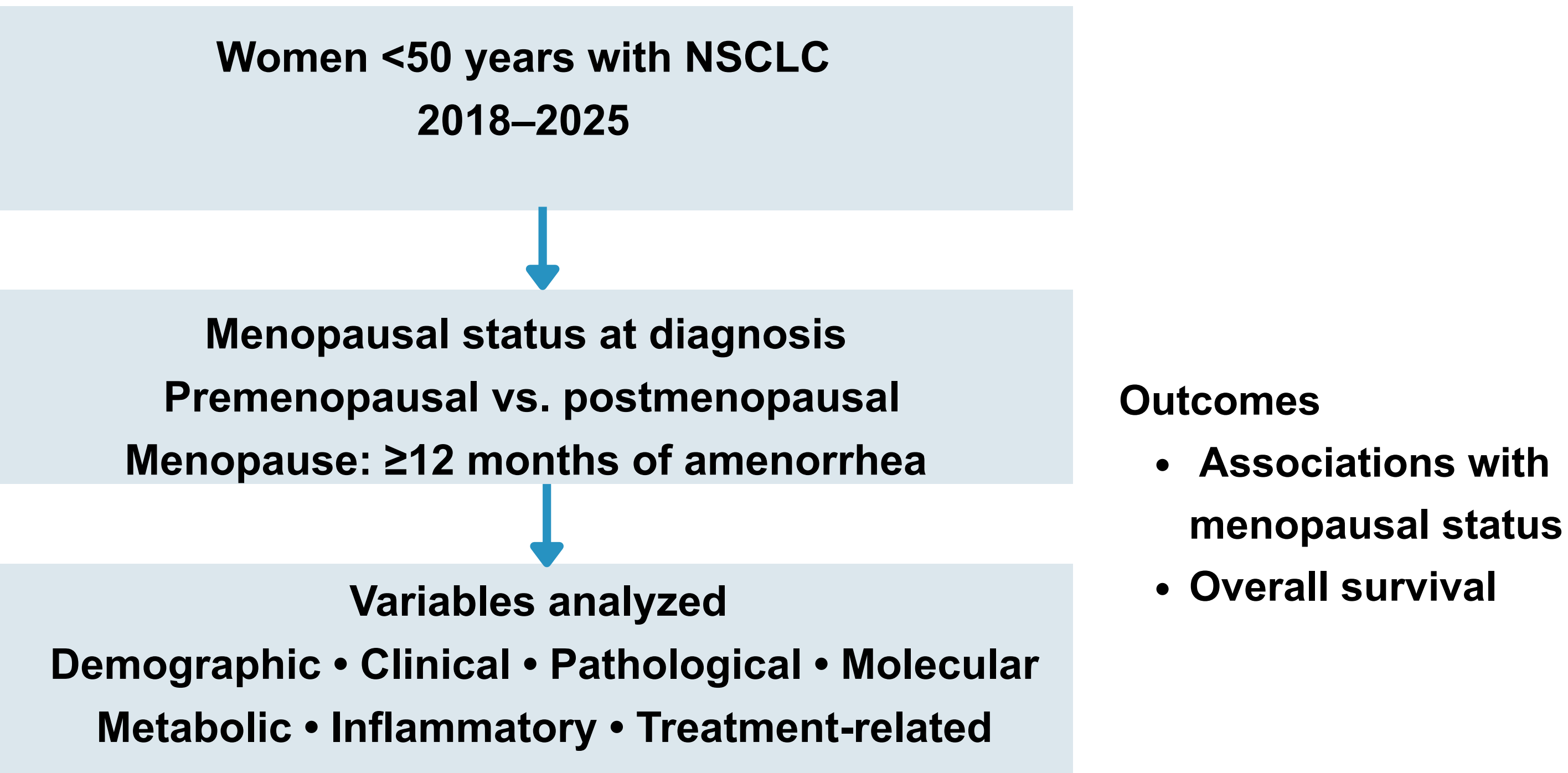
AUTHORS

Cristina Torres-Mallma 1 , Ronald Calle Valdez, 2,4, Rossana Ruiz1,3 Natalia Valdiviezo 1,3 Luis Mas 1,3
1 AUNA - Oncosalud, Lima, Peru, 2 Hospital Nacional Alberto Sabogal Sologuren, Lima, Peru, 3 Medical Oncology Department, Instituto Nacional de Enfermedades Neoplásicas, Lima, Peru, Lima,Peru, 4IPOR - Instituto Peruano de Oncología y Radioterapia, Lima, Peru
Correspondence: cristoma95@mail.com , ronald.calle.valdez@gmail.com

INTRODUCTION

Sex-related differences in NSCLC are increasingly recognized, but the impact of hormonal status in younger women remains unclear. We evaluated the association of menopausal status with molecular characteristics and clinical outcomes in women <50 years with NSCLC.

METHODS



RESULTS

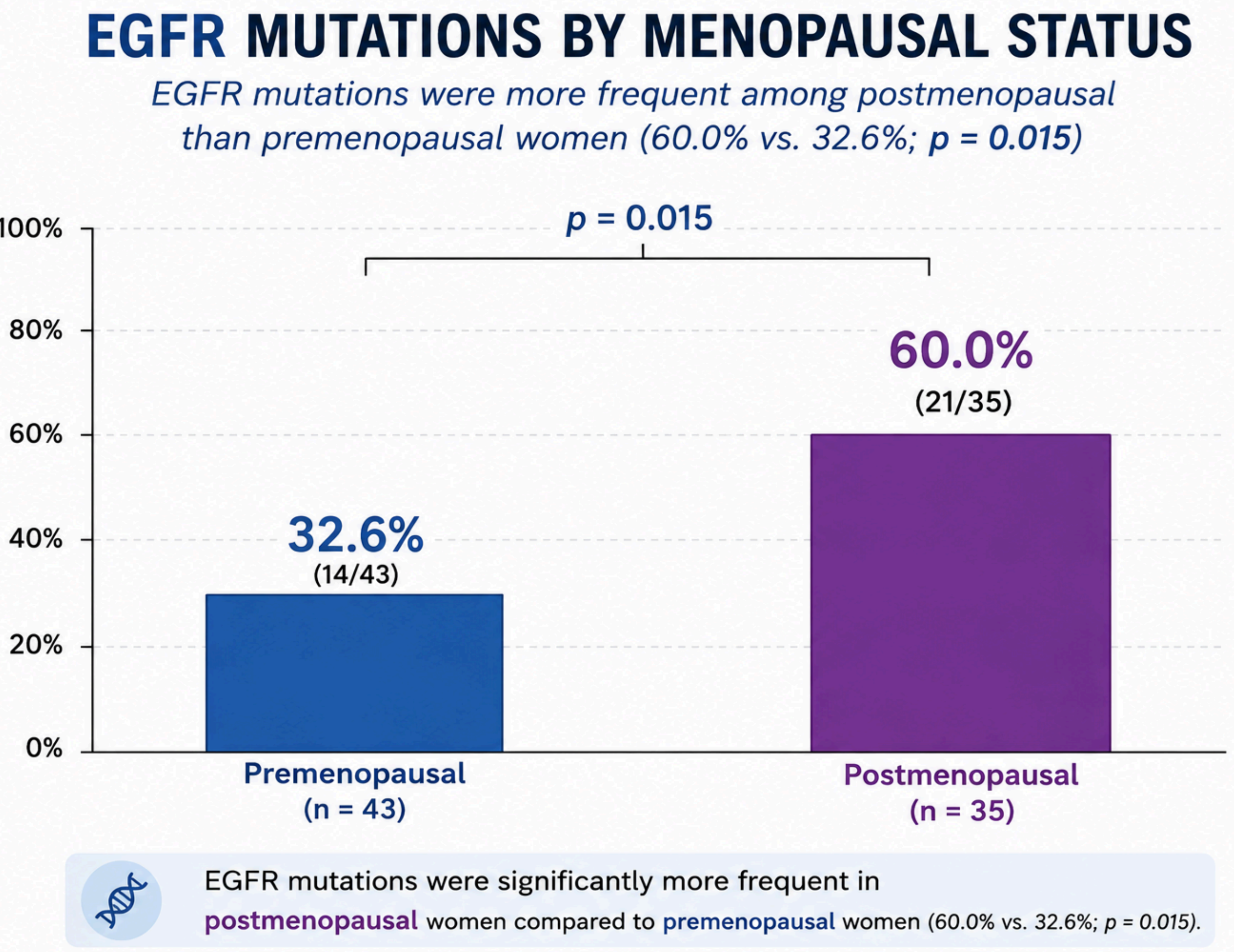


Figure 1. EGFR mutation frequency according to menopausal status.

Characteristic	n (%)	Characteristic	n (%)
Geographic origin		PD-L1 expression	
Lima	76 (97.4)	<1%	25 (32.1)
Arequipa	2 (2.6)	1–49%	41 (52.6)
ECOG performance status		≥50%	12 (15.4)
ECOG 1	59 (75.6)	BMI category	
ECOG 2	19 (24.4)	Normal	39 (50.0)
Menopausal status		Overweight/obesity	39 (50.0)
Premenopausal	43 (55.1)	NLR	
Postmenopausal	35 (44.9)	<3	41 (52.6)
Smoking status		≥3	37 (47.4)
Smoker	9 (11.5)	Treatment	
Non-smoker	69 (88.5)	Chemotherapy	7 (9.0)
Comorbidities		Immunotherapy	4 (5.1)
Yes	8 (10.3)	TKI	37 (47.4)
No	70 (89.7)	Chemotherapy + immunotherapy	28 (35.9)
Histology		Surgery	2 (2.6)
Adenocarcinoma	68 (87.2)	Treatment-related toxicity	
Squamous cell carcinoma	10 (12.8)	Yes	18 (23.1)
CS		No	60 (76.9)
I	1 (1.3)	Toxicity grade*	
II	8 (10.3)	Grade 1	3 (16.7)
III	1 (1.3)	Grade 2	15 (83.3)
IV	68 (87.2)	Type of toxicity	
EGFR mutation		Hypothyroidism	9 (11.5)
Positive	35 (44.9)	Rash	5 (6.4)
Negative	43 (55.1)	Diarrhea	1 (1.3)
EGFR mutation subtype		Mucositis	3 (3.8)
Exon 19	26 (33.3)	None	60 (76.9)
Exon 21	8 (10.3)	Disease progression	
Exon 20	1 (1.3)	Yes	45 (57.7)
EGFR wild-type	43 (55.1)	No	33 (42.3)
ALK rearrangement		Best response	
Positive	7 (9.0)	Complete response	2 (2.6)
Negative	71 (91.0)	Partial response	14 (17.9)
KRAS mutation		Stable disease	18 (23.1)
Positive	3 (3.8)	Progressive disease	44 (56.4)
Negative	75 (96.2)	Vital status	
		Alive	70 (89.7)
		Dead	8 (10.3)

Table 1. Patients characteristics at baseline

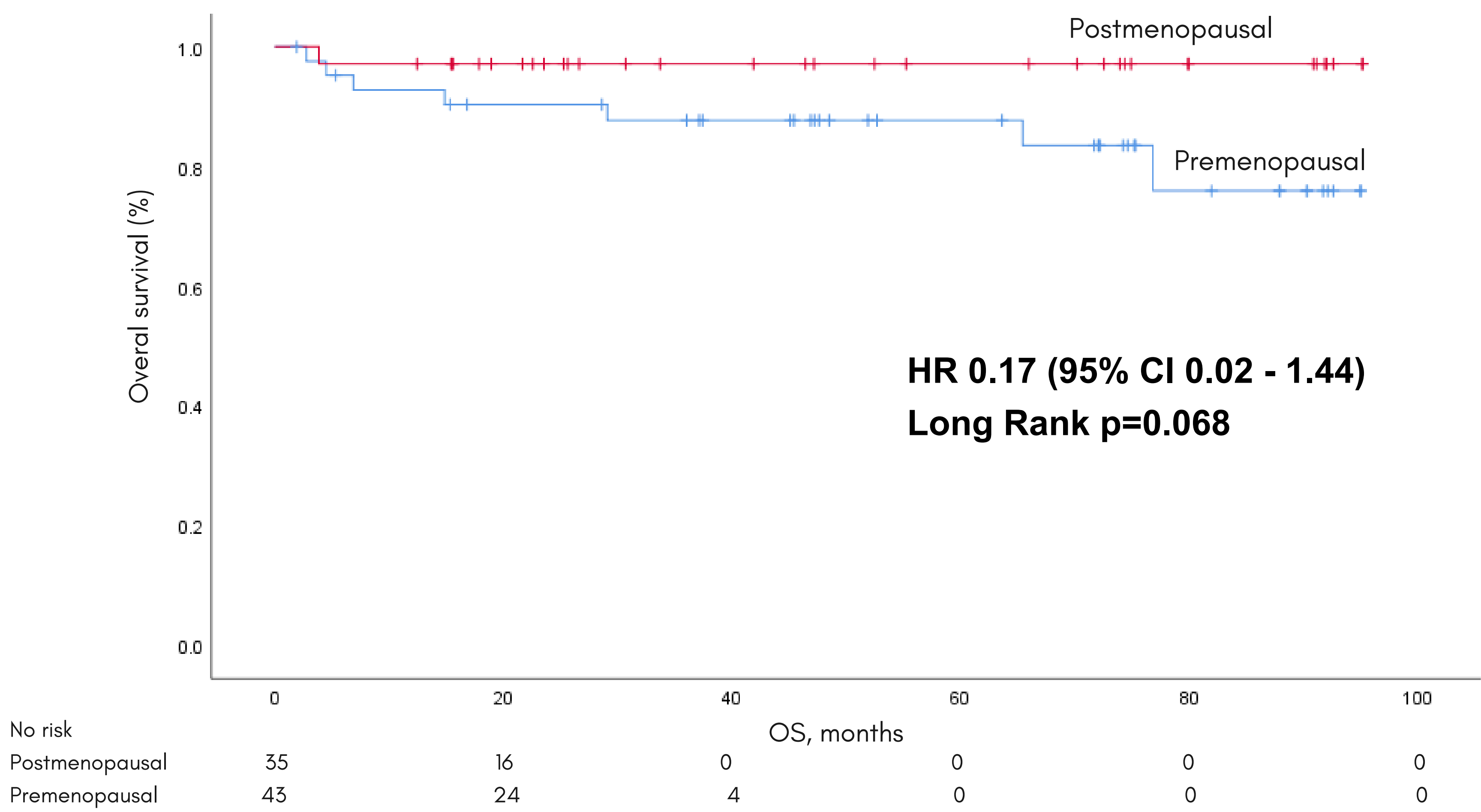


Figure 2. Overall survival according to menopausal status.

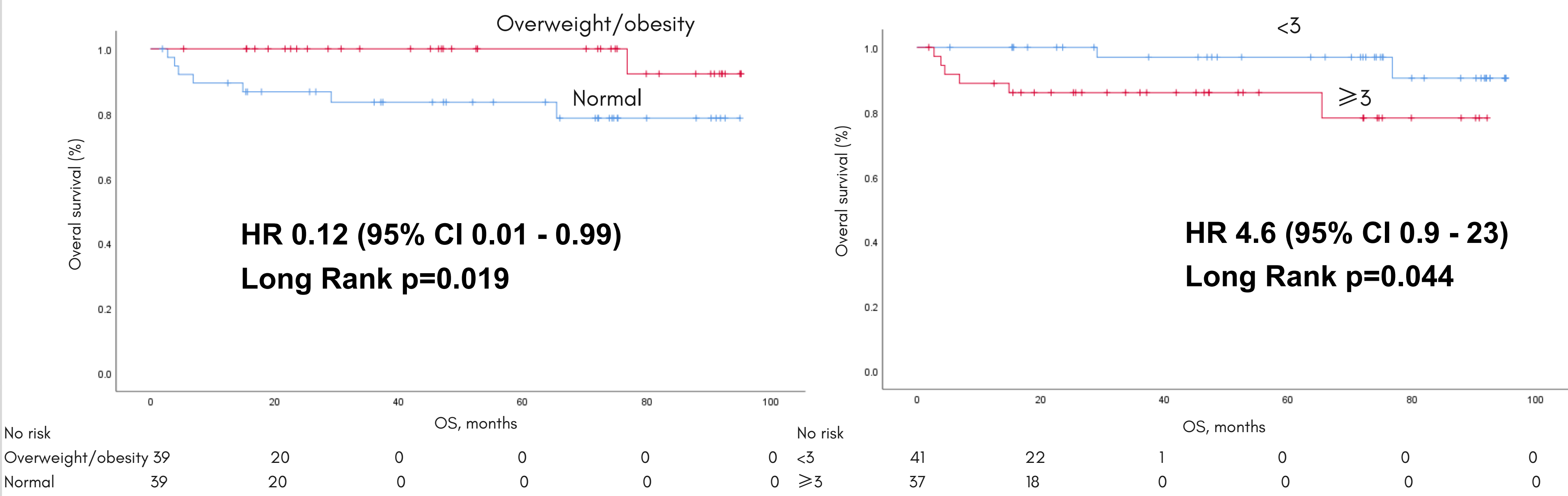


Fig 3. Overall Survival by BMI Category

Fig 4. Overall Survival by NLR

CONCLUSION

Menopausal status was associated with EGFR mutation frequency and showed a trend toward improved survival, suggesting a potential role of hormonal status in NSCLC biology among young women. NLR and BMI were also significant predictors of survival. These real-world Latin American findings warrant further prospective investigation.

Abbreviations: NSCLC, non–small cell lung cancer; NLR, Neutrophil-to-Lymphocyte Ratio ; BMI, Body Mass Index ; OS, overall survival; HR, hazard ratio; CS, clinical stage.