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Background

Well-differentiated neuroendocrine tumors of the lung (Lung NET) are classified as typical (TC) and atypical (AC) carcinoids, on the basis of mitotic count and presence of necrosis. However, the identification of prognostic factors, other than TNM stage and histopathological diagnosis of AC versus TC, are still lacking.

Methods

We assessed the association of clinical and pathological data with survival in a multicenter retrospective series of 200 surgically resected lung NET from 8 Italian & 1 Spanish Institutions. Patients data were collected and analyzed by SPSS program.

Conclusions

This study confirms the prognostic relevance of TNM stage and of the diagnosis of AC, to stratify NET patients. Additionally, our analysis suggests a potential prognostic value for new clinical and pathological features, as male gender, left-sided primary tumor and high proliferation index.

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Results

Feature	N (=200)	%
Gender		
Male	80	60.0
Female	120	40.0
Age		
Median (range)	60 (13-86)	
Side		
Left	81	40.5
Right	119	59.5
Stage		
I	113	56.5
II	56	28.0
III	17	8.5
IV	12	6.0
Unknown	2	1.0
Nodal status		
N0	141	70.5
N+	50	25.0
Unknown	9	4.5
Diagnosis		
TC	138	69.0
AC	62	31.0
Ki67		
1-2%	87	43.5
3-19%	74	37.0
≥20%	8	4.0
Unknown	31	15.5
Mitotic count		
< 2 per 10 HPF	108	54.0
≥ 2 per 10 HPF	64	32.0
Unknown	28	14.0
Necrosis		
No	164	82.0
Yes	35	17.5
Unknown	1	0.5
PFS months (range)	36 (0.5-323)	
OS months (range)	49 (0.6-323)	

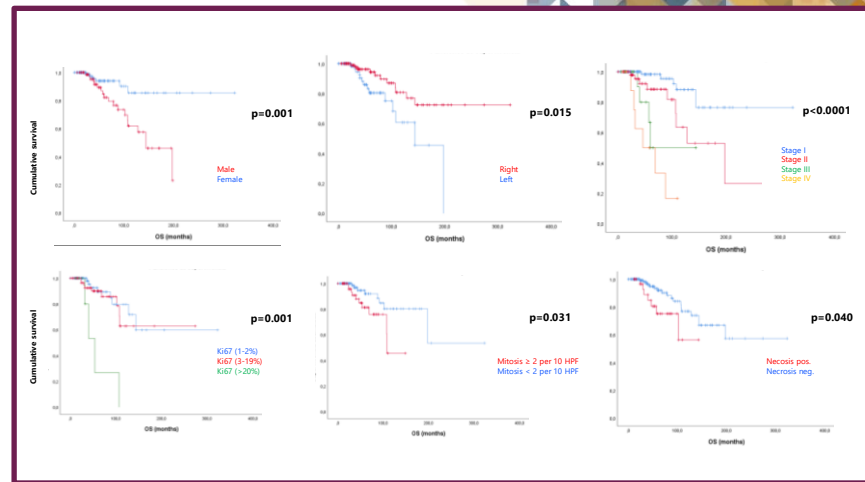


Figure 1 Kaplan Meier OS.

Feature	P	HR	95% CI
Gender			
Male vs female	0.0127	2.913	0.920-9.222
Tumor location			
Right vs left parenchyma	0.0669	2.597	0.967-6.977
TNM stage			
III-IV vs I-II	0.0208	11.252	2.235-56.653

Table 1. Characteristics of the study population

Table 2. Multivariate analysis OS