

# Patients with neuroendocrine neoplasms: the experience of a referral center in Greece

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## BACKGROUND

Neuroendocrine neoplasms (NENs) are rare and heterogeneous neoplasms with variable biological behavior but generally slow progression.

## AIMS

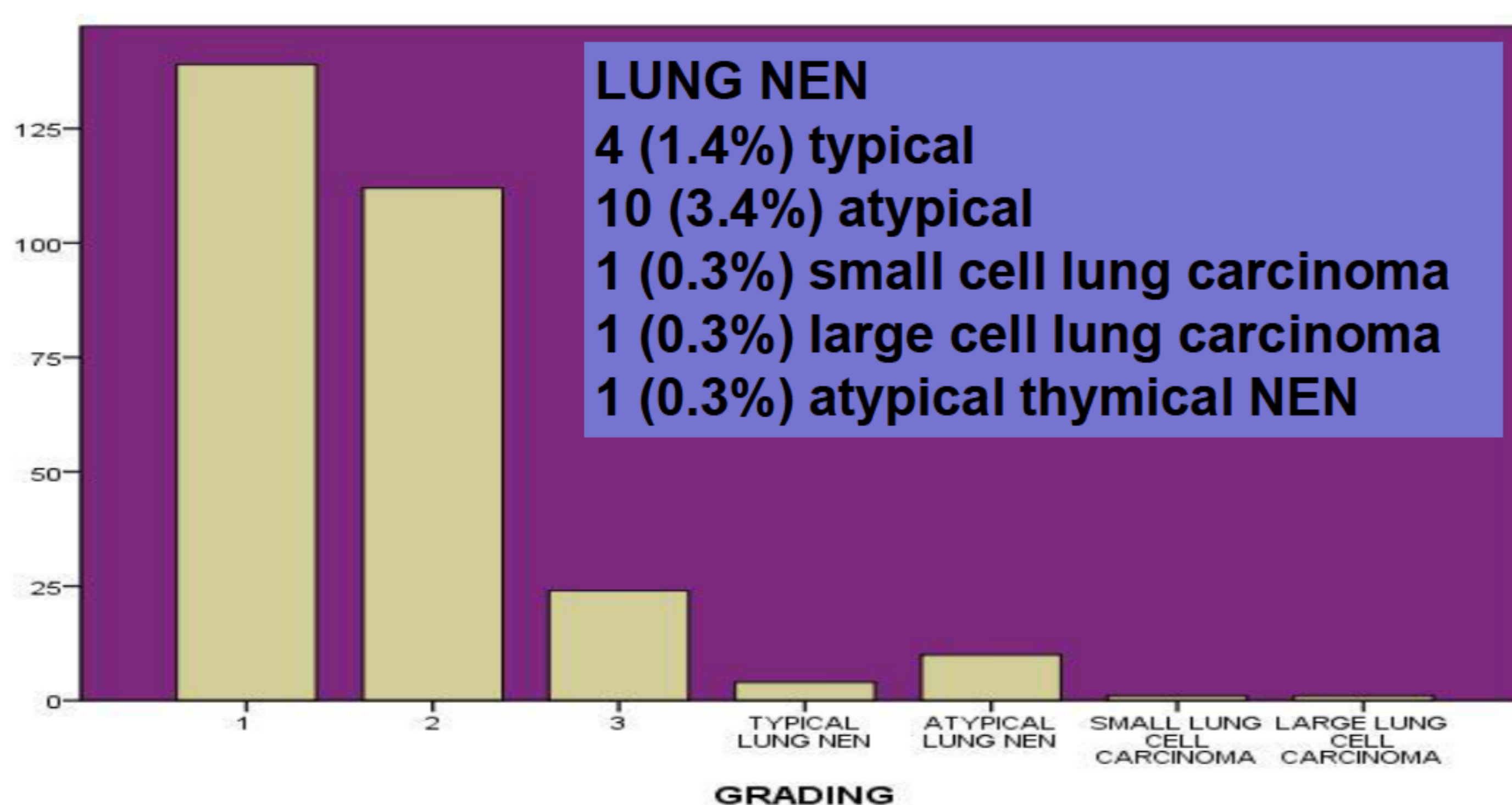
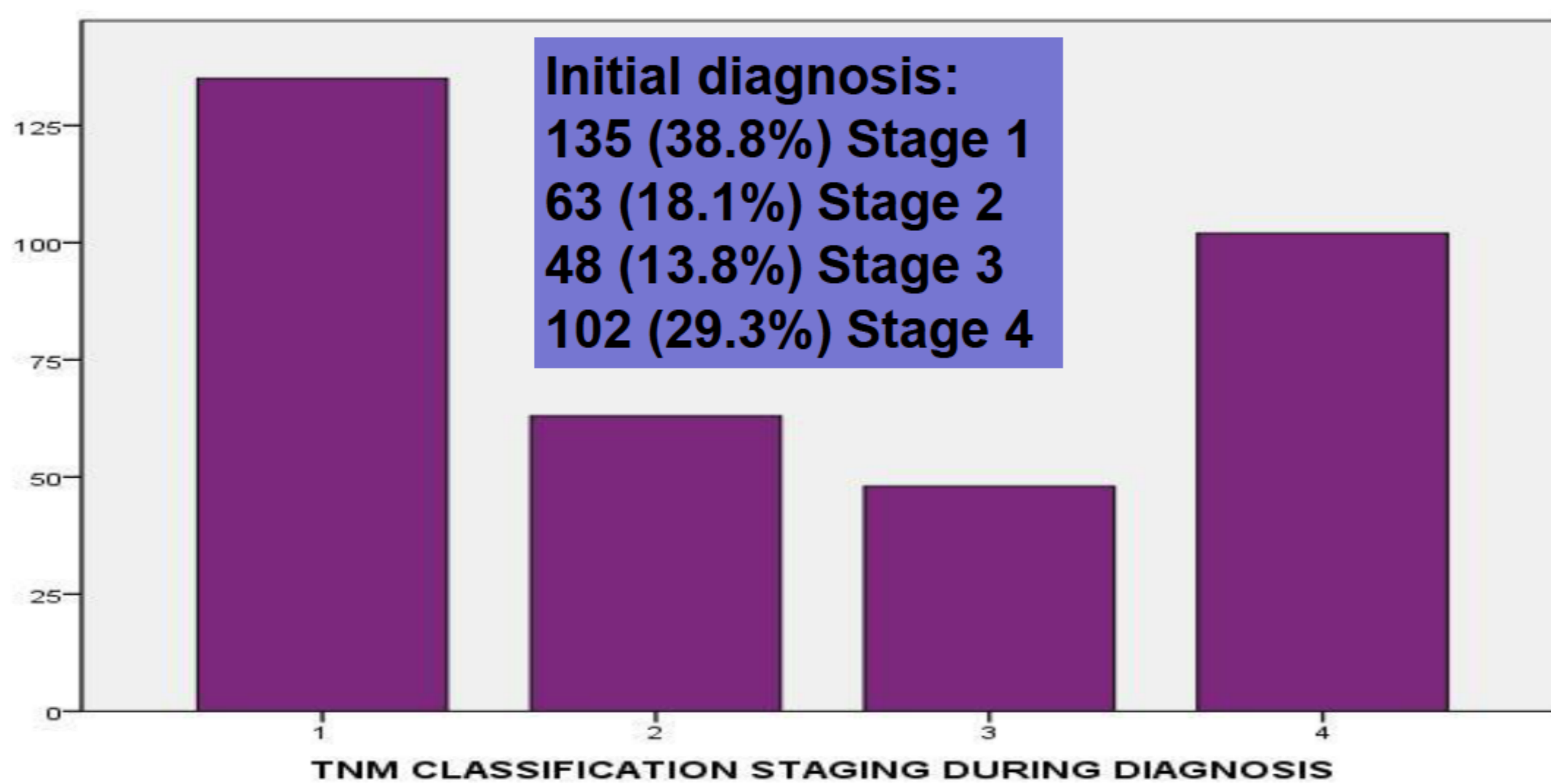
Registration of demographics, clinical, imaging, pathological features, therapeutic options, response to treatment, overall survival of patients with NENs

## METHODS

- 355 patients with NENs from our data-base registered during the period 2004-2014 have been retrospectively studied
- 166 females with mean age 52 years and range: 11-88
- TNM classification system has been used for staging
- Proliferation index Ki-67 has been used for grading
- Registered: primary site, presence of secretory/ functional syndrome, metastatic deposits, presence of familiar syndrome
- Therapeutic management and outcome were registered

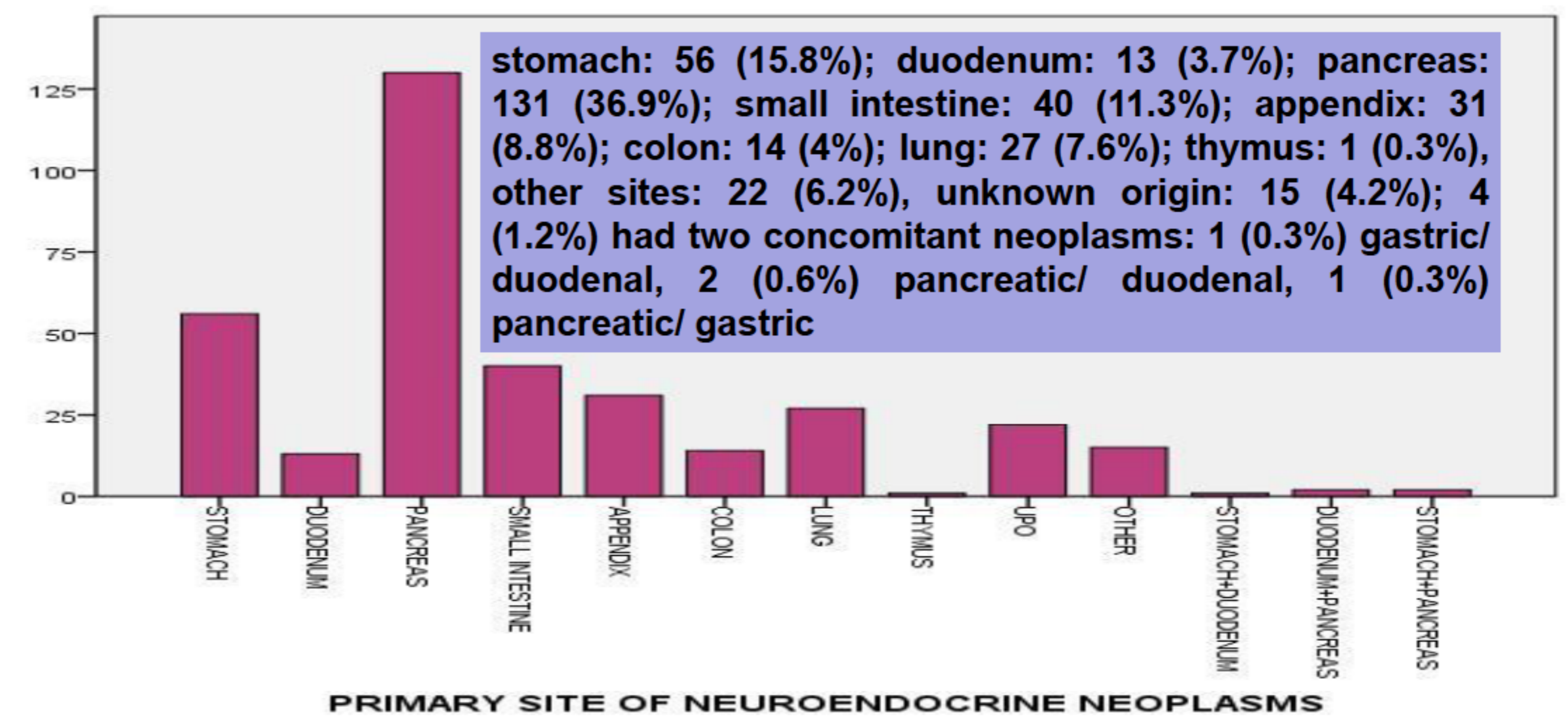
## RESULTS

- ❖ 35 (10%) had neoplasms in the context of familiar disorders: MEN-1 (n=32) and Von Hippel Lindau (n=2).
- ❖ 54 (15.3%) had functional syndrome
- ❖ Metastatic deposits were found in 103 (29%) patients: bones: 16 (4.5%), lung: 5 (1.4%), liver: 94 (22.5%), peritoneum: 7 (2%), pancreatic: 2 (0.6%), brain: 2 (0.6%), omentum: 2 (0.6%), ovaries/ kidneys/ spleen: 1 (0.28%).



**GI-NENs Grading:**  
 139 (47.8%) Ki-67 ≤ 2% (grade 1)  
 111 (31.3%) Ki-67: 3-20% (grade 2)  
 24 (8.2%) Ki-67 > 20% (grade 3)

## RESULTS



Line of treatment	1 <sup>st</sup> (357)	2 <sup>nd</sup> (99)	3 <sup>rd</sup> (44)	4 <sup>th</sup> (23)	5 <sup>th</sup> (12)	6 <sup>th</sup> (5)
Surgery	197	14	6		3	1
Endoscopic resection	46					
Somatostatin receptors analogs	100	56	29	16	9	4
Chemotherapy	45	23	13	3	3	4
Molecular targeted therapy	22	22	5	14	6	2
Peptide receptor radionuclide therapy	9	10	21	4		
Electron bean radiotherapy	6		1	3	1	
Radiofrequency ablation (RFA) therapy	8	8	5	4		
Chemoembolization	6	5	5	2	1	
Interferon	2	1				
Follow up only	150	13				

Molecular targeted therapy: everolimus, bevacizumab, sunitinib.  
 Chemoembolization: Transarterial Chemoembolization (TACE) or Transarterial Embolisation (TAE).

Patients with long term treatment, multiple therapeutic schemes and multiple therapeutic combinations

- ❖ In the last follow-up of the present analysis 21 patients died from their disease: 5 had grade 1 neoplasm, 10 grade 2, 2 grade 3, 1 atypical thymic and another atypical lung NEN but 2 patients did not have an available Ki-67.

## Conclusion

The present registry imply that the majority of the patients with NENs have slow progression and long survival despite the presence of disseminated disease, confirming the necessity of the recent introduced therapeutic and diagnostic options following the guidelines as well as their management from referral centers under multidisciplinary teams.

## References

1. Alexandraki KI, Kaltsas G. Endocrine. 2012 Feb;41(1):40-52
2. Kaltsas GA, Besser GM, Grossman AB. Endocr Rev. 2004 Jun;25(3):458-511

