

## Neuroendocrine Tumors in Young Adult Patients- Epidemiological Profile

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**Background:** Neuroendocrine tumors (NETs) comprise a rare disease, mainly in young patients (pts). However, an increase in the number of cases in young-onset (18-40 years old) NETs (YONET) has been observed in our clinical practice. The data about YONET epidemiological profile are scarce; thus, this study aims to assess the frequency and clinical aspects of YONET in comparison to late-onset (>40 years old) NETs (LONET).

**Methods:** We performed a retrospective analysis of all consecutive pts diagnosed with gastroenteropancreatic NETs treated from 2010 to 2018 at AC Camargo Cancer Center, a large cancer center located in São Paulo, Brazil. Data were collected from medical files. Descriptive analysis was used to summarize pts characteristics, by groups of YONET and LONET. Differences between groups were assessed by the Fisher exact test or Pearson chi-square test. A p value <0.05 was considered significant.

### Results:

A total of 456 pts were enrolled. The most common origin was midgut (150, 32.9%) followed by pancreas (121, 26.5%).

Male/female were 206 and 250 respectively, and there was no significant difference between groups. YONET occurred in 90 (19.7%) pts: they were more likely to be non-smoker (p=0.001), had less comorbidities (p=0.001) and less second neoplasms (p=0.003). YONET pts were more symptomatic at diagnosis (p=0.001), were more likely to present well differentiated NETs (p=0,005) and were less likely to present metastatic NET at diagnosis (109 [29.8%] among the LONET pts and 16 [17.8%] among the YONET pts; p=0.02) in comparison with LONET pts. YONET pts also had a higher frequency (6.7% vs. 3.0%) of known genetic syndromes, but regarding family history, there was no difference between groups.

**Conclusions:** This study presented one of the largest cases of YONET pts known in the literature. We demonstrated important population differences and clinical aspects in this group, reinforcing the need for more research on YONET.