Clinical and epidemiological profile of neuroendocrine differentiation
A hospital-based retrospective study

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Introduction

Background:

- Global research on neuroendocrine differentiation (NED) in carcinomas remains limited, despite its distinct clinical features, disease progression, pathology, treatment outcomes, and poor prognosis.
- At the 2023 ENETS Congress, we presented our findings on NED in gastric cancer and colorectal cancer. However, more studies are essential to better comprehend NED's clinical and epidemiological aspects.

Aims:

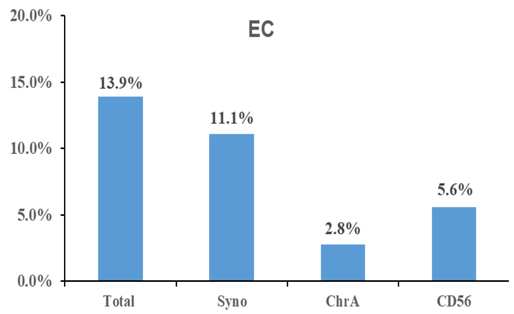
- The study aims to explore the incidence of NED in a variety of tumors.

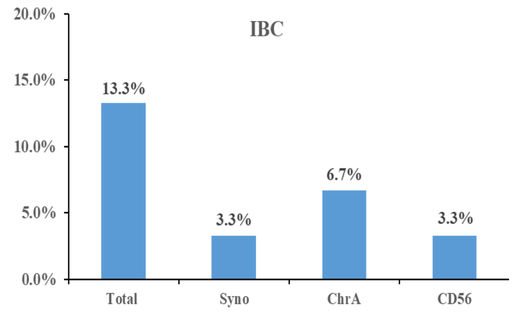
Methods

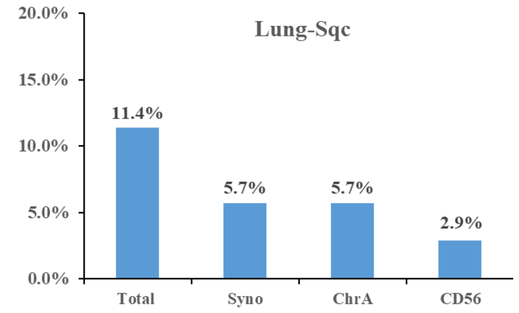
- This retrospective study analyzed histopathological samples from patients diagnosed with malignant tumors, employing immunohistochemical techniques to detect NED markers (ChrA, Syno, CD56).
- The morbidity and prognosis of NED patient would be analysised subsequently. Inclusion criteria were pathologically confirmed breast cancer (BC), lung cancer (LC), esophageal cancer (EC) and prostate cancer (PC) with no prior neoadjuvant chemotherapy or radiotherapy received before surgery. Patients aged 18-75 years with normal organ functions were enrolled.

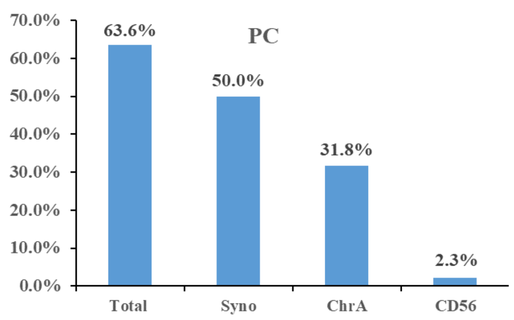
Results

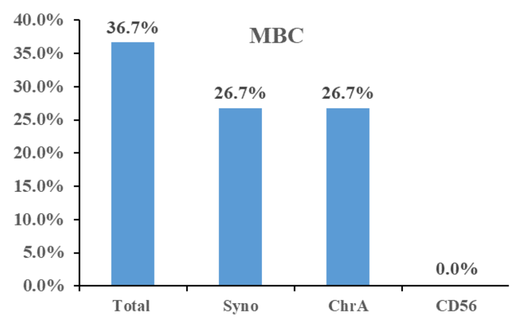
- From January 2017 to June 2018, over 450 cases were included.
- Initial analysis covered 36 EC, 44 PC, 60 BC (infiltrative tumor of no special type [IBC]/ mucinous carcinoma [MBC]: 30 each), and 70 LC (squamous cell carcinoma [Lung-sqc]/adenocarcinoma [Lung-Adc]: 35 each) samples.
- NED markers were positive in 4 (11.1%) EC, 15 (34.1%) PC, 4 (13.3%) IBC, 11 (36.7%) MBC, 4 (11.4%) Lung-sqc, and 3 (8.6%) Lung-Adc patients.

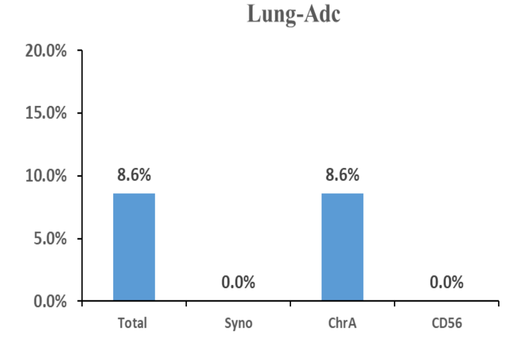












Conclusions:

- Neuroendocrine differentiation is obviously observed in EC, PC, BC and LC.
- The significant prevalence rate of NED could have implications for personalized treatment strategies. Further research is warranted to delve deeper into this area.

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