

# P-15

## The Risk of Second Primary Colorectal Adenocarcinomas Is Not Increased Among Patients with Gastroenteropancreatic Neuroendocrine Neoplasms – A Nationwide Population Based Study

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**BACKGROUND:** It has been suggested that second primary colorectal adenocarcinomas occur with a higher frequency in patients with gastroenteropancreatic neuroendocrine neoplasms (GEP-NENs). In a nationwide population based study, we investigated the risk of second primary colorectal adenocarcinomas in GEP-NEN patients and compared it to the general population.

**METHODS:** Using the nationwide Danish registries, we identified 3,019 GEP-NEN patients (median age 63 years (IQR 50-73 years), 53 % women) diagnosed in 1995-2010. We used Cox regression to compare the incidence of second primary colorectal adenocarcinomas in GEP-NEN patients relative to a gender- and age-matched general population sample of 59,775 persons.

**RESULTS:** We observed 25 second primary colorectal adenocarcinomas among the 3,019 GEP-NEN patients with a total time of risk of 15,307 years (incidence = 166 per 100,000 person-years) and 823 second primary colorectal adenocarcinomas in the general population of 59,775 persons with a total time of risk of 498,759 years (incidence = 165 per 100,000 person-years). The hazard ratio (HR) of second primary colorectal adenocarcinoma from GEP-NEN

diagnosis to end of follow up was 1.36 (95% CI: 0.90-2.04) in GEP-NEN patients compared to the general population. Overall, this nonsignificant association was the result of a strong positive association in the first 6 months after diagnosis of GEP-NEN (HR = 9.78 (95 % CI:5.37-17.83)) followed by a negative association in the remainder of the follow-up period (HR = 0.70 (95 % CI:0.34-1.41)).

**CONCLUSION:** In this population based study, there was no increased risk of second primary colorectal adenocarcinoma among GEP-NEN patients. The extensive clinical work-up in newly diagnosed GEP-NEN patients likely explains the strong positive short-term association followed by a negative association.