

Incidental Diagnosis of Pancreatic Neuroendocrine Tumors

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Abstract:

Background: Pancreatic neuroendocrine tumors are often discovered incidentally during radiologic or endoscopic examinations. The incidence of incidental detection is unknown. It is also unclear whether patients with incidentally discovered, asymptomatic tumors should be treated similarly to patients who present with tumor-related symptoms.

Methods: A database of 425 patients with pancreatic neuroendocrine tumors was developed. Patient charts were reviewed to assess whether their diagnosis was incidental or prompted by tumor-related symptoms such as pain, jaundice, or neuroendocrine hormone secretion. The frequency of incidentally detected tumors was categorized by TNM stage. Overall survival was stratified by "incidental" vs. "symptomatic" diagnosis.

Results: Amongst 425 patients with pancreatic NETs, 112 patients (26%) had tumors which were discovered incidentally. The majority of stage I tumors (55%) were incidentally detected. Amongst patients with stage IV tumors, 20% were detected incidentally. Median survival of patients with incidentally discovered tumors was 103 months vs. 84 months in patients who were symptomatic at diagnosis.

Conclusions: A sizeable fraction of patients with pancreatic NETs are diagnosed incidentally during evaluations for other conditions or unrelated symptoms. The majority of patients with stage I tumors are incidentally diagnosed. The increased incidence of incidentally discovered pNETs may be contributing to improving survival rates in this disease.

Introduction:

- Pancreatic neuroendocrine tumors are often discovered incidentally during radiologic or endoscopic examinations.
- The frequency of incidental detection is unknown
- It is unclear whether the prognosis of incidentally discovered tumors differs from prognosis of symptomatic tumors

Methods:

- A database of 425 patients treated at the H. Lee Moffitt Cancer Center was developed.
- Patient charts were reviewed to assess whether their diagnosis was incidental, or prompted by tumor-related symptoms such as pain, jaundice or neuroendocrine hormone secretion.
- Frequency of incidental diagnosis was stratified by TNM stage
- Overall survival was analyzed based on "incidental" or "symptomatic" diagnosis.

Results:

- 112/425 patients (26%) had tumors which were discovered incidentally (figure 1).
- The frequency of incidental diagnosis varied by stage. The majority of stage I tumors (55%) were diagnosed incidentally (figure 2).
- Median survival of patients with incidentally discovered tumors was 103 months versus 84 months in patients who were symptomatic at diagnosis (figure 3)
- Amongst stage IV patients, median survival was 89 months for incidentally discovered tumors versus 67 months for symptomatic tumors (figure 4).

Figure 1: Frequency of incidentally diagnosed tumor

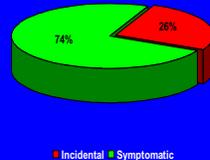


Figure 2: Frequency of incidentally diagnosed tumors, by AJCC stage

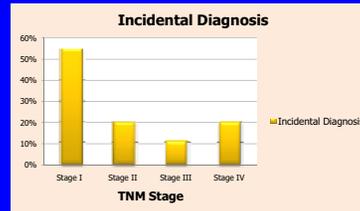


Figure 3: Overall survival of patients with incidentally vs. symptomatically diagnosed tumors

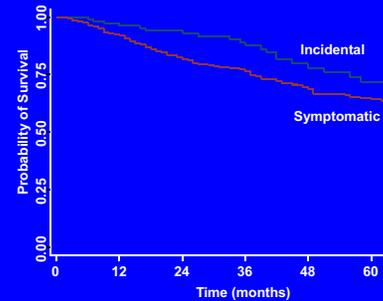
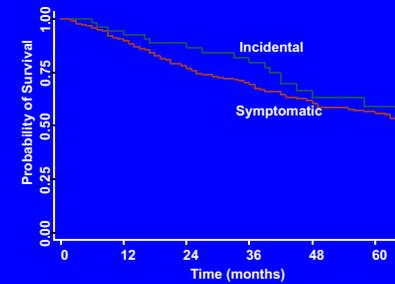


Figure 4: Overall survival: incidental vs. symptomatic diagnosis in stage IV patients.



Conclusions:

- A sizeable fraction of patients with pNETs are discovered incidentally during evaluations for other conditions or unrelated symptoms.
- The majority of Stage I tumors are incidentally diagnosed.
- The increased incidence of incidentally discovered tumors may be contributing to improving survival rates in pNETs.

