

The prevalence of pancreatic neuroendocrine neoplasms with dedifferentiation during their natural history

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Objectives

- ❖ Neuroendocrine neoplasms (NENs) are neoplasms with a slow progression and a 5-year survival 77-95%.
- ❖ Secondary deposits of NENs may dedifferentiate during the natural history of the disease, presenting a more aggressive biological behaviour.
- ❖ The aim of the study was to investigate the prevalence of secondary foci dedifferentiation of pancreatic NENs (p-NENs).

Results

- ❖ 5 (3%) patients, all with sporadic pNENs, presented dedifferentiation
- ❖ Mean age 58.8±4.3yrs

Table1: Patients' characteristics

Gender	Age of diagnosis	Primary tumor	Stage at diagnosis	Ki67/grade	Secondary deposits	New ki67/grade
	55	Pancreas	IV	5%/2	Liver	70%/3
	54	Pancreas	III	1%/1	Liver, ovaries, breast	51%/3
	62	Pancreas	IV	5%/2	Liver, bones	50%/3
	64	Pancreas	IV	5%/2	Liver	30%/3
	59	Pancreas	IV	5%/2	Liver	60%/3

- ❖ 2 with functional syndrome
 - ❖ 1 carcinoid syndrome
 - ❖ 1 insulinoma
- ❖ 2 (40%) underwent surgery
- ❖ 1st line treatment
 - ❖ 2(40%) Somatostatin analogs (SAs)+everolimus
 - ❖ 1(20%) SSAs + everolimus + Peptide receptor radionuclide therapy (PRRTs)
 - ❖ 1(20%) SSAs
 - ❖ 1(20%) follow up
- ❖ Progression-free survival (PFS) after 1st line treatment
 - ❖ 39.3±25.9 months
- ❖ PFS after further therapies (8 lines)
 - ❖ 13.4±11.2 months to 6.3±7.0 months
- ❖ Mean time from diagnosis until dedifferentiation
 - ❖ 65.6±61.0 months
- ❖ 2(40%) patients deceased
 - ❖ OS 158.7±50.9 months
- ❖ Total follow up
 - ❖ 86.6±70.7 months

Table 2: Total survival of all patients with pNENs

	5yr survival	10yr survival
Patient with pNENs	82,8%	48,3%

- ❖ From the patients with dedifferentiation 2 were alive after 5 and 10 years of follow up
 - ❖ 1 deceased after 10.2yrs
 - ❖ 1 deceased after 16.2yrs

Conclusions

- ❖ The dedifferentiation of NENs implies a more aggressive biological behaviour and worse overall survival despite the use of different therapies.

References

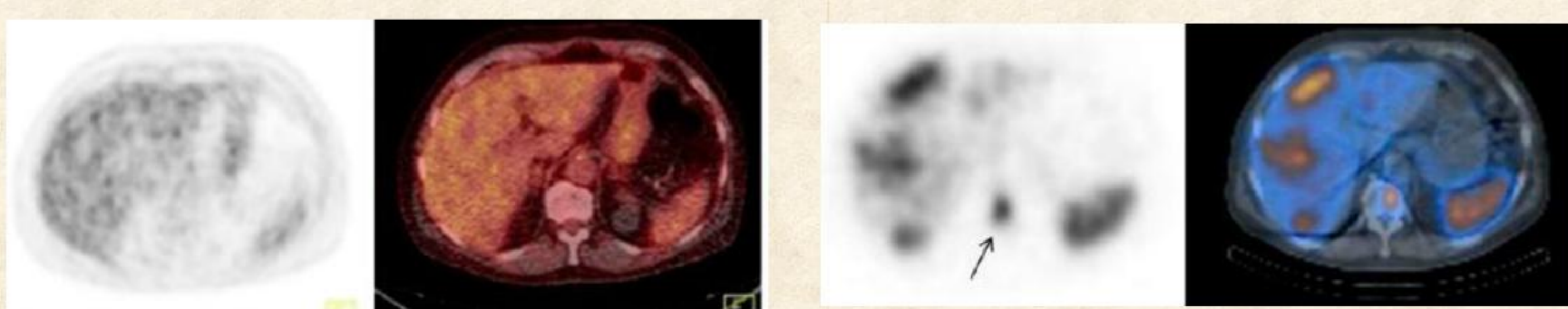
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Methods

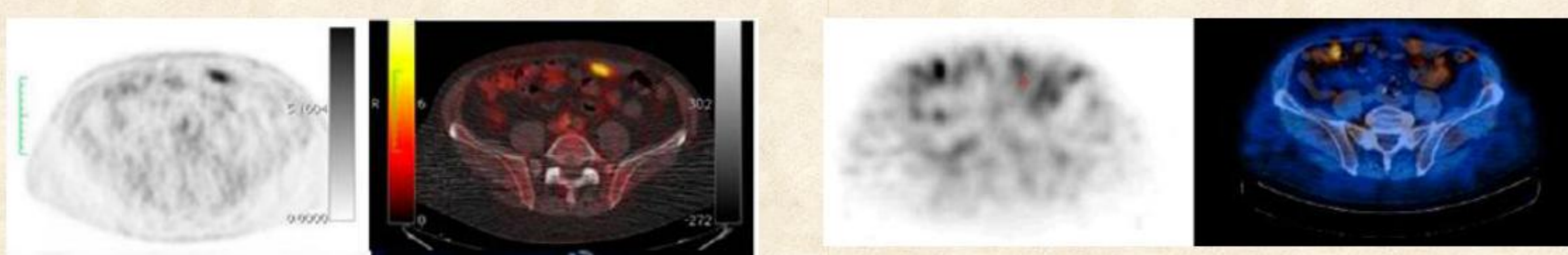
- ❖ From the NENs database of 414 patients, 160 (38,6%) had pNENs.
- ❖ Patients with dedifferentiation were identified by a new biopsy of metastatic foci and a high proliferation index Ki-67 MIBI (%) that indicated a poorly differentiated NENs that originated from a primary site with a lower Ki-67.



Improvement of the liver metastases after treatment with temozolomide/capecitabine. New lesion (ki 67=50%)



Patient with grade 1 (ki67<2%) ileal NEN. Negative 18FDG-PET/CT and positive somatostatin receptor scintigraphy (SRS)



Patient with grade 3 (ki67=95%) colon NEN. Positive 18FDG-PET/CT and negative SRS.