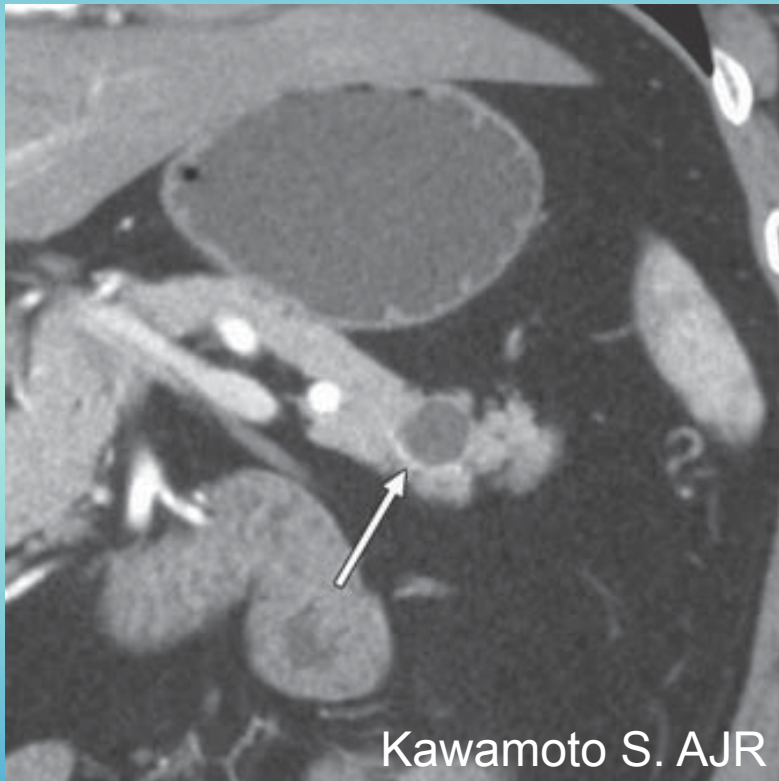
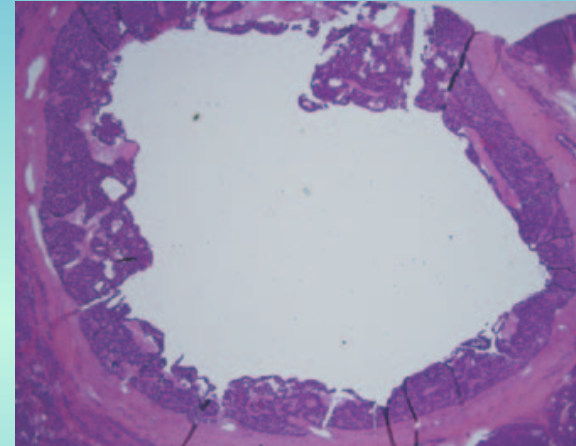


Cistici

rari, 90% hanno rim-enhancement



Kawamoto S. AJR



Pancreatic Neuroendocrine Tumor With Cystlike Changes: Evaluation With MDCT

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Keywords: cystic pancreatic neuroendocrine tumor (NET), MDCT, pancreatic NET, peripheral contrast enhancement

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OBJECTIVE. The objective of our study was to determine the prevalence and CT appearance of cystlike changes of pancreatic neuroendocrine tumor (NET), particularly of small (≤ 3 cm) tumors.

MATERIALS AND METHODS. The clinical records, images, and pathologic reports of 74 consecutive patients (average age, 55.5 years) with surgically resected pancreatic NETs who underwent preoperative CT were retrospectively reviewed. The size and location of the pancreatic NETs were recorded. The tumors were classified on the basis of CT appearance as small (≤ 3 cm) or large (> 3 cm) and as solid, partially ($\leq 50\%$ or $> 50\%$) cystic, or purely ($\approx 100\%$) cystic. Peripheral contrast enhancement on CT was characterized, and lymph node and liver metastases found by pathologic examination were recorded.

RESULTS. A total of 78 pancreatic NETs were reviewed. Five were not visualized on CT, leaving 73 pancreatic NETs in 69 patients (multiple tumors were visualized on CT of three patients) for analysis. The mean size of the 73 tumors was 3.0 ± 2.6 (SD) cm (range, 0.7–13.1 cm); 52 tumors were 3 cm or smaller and 21 tumors were larger than 3 cm. Gross pathologic results confirmed that 13 of the 73 (17.8%) tumors were predominantly ($> 50\%$ or $\approx 100\%$) cystic: 10 of the 52 (19.2%) tumors 3 cm or smaller and three of the 21 (14.3%) tumors larger than 3 cm. Peripheral contrast enhancement was seen in 11 of the 13 (85%) predominantly cystic pancreatic NETs. Compared with solid pancreatic NETs, predominantly cystic pancreatic NETs were less commonly associated with lymph node and liver metastases.

CONCLUSION. Cystic pancreatic NETs are not rare and should be included in the differential diagnosis of a cystic pancreatic mass, particularly if the cystic mass is associated with peripheral contrast enhancement. A minority of cystic pancreatic NETs can present with no peripheral enhancement.



TRATTO GASTROINTESTINALE

Piccoli (<2cm); sottomucosi; ipervascolarizzati in fase arteriosa; multifocali 30%
(DD con neoformazioni sottomucose: GIST e altro)
Linfoadenopatie mesenteriche; reazione desmoplastica;



STADIAZIONE

T and stage definitions in the European Neuroendocrine Tumor Society (ENETS) and the International Union for Cancer Control/American Joint Cancer Committee/World Health Organization (UICC/AJCC/WHO) 2010 TNM staging systems (3-6)*

Definitions	ENETS TNM	UICC/AJCC/WHO 2010 TNM
T definition		
T1	Limited to the pancreas, <2 cm	Limited to the pancreas, ≤2 cm in greatest dimension
T2	Limited to the pancreas, 2-4 cm	Limited to the pancreas, >2 cm in greatest dimension
T3	Limited to the pancreas, >4 cm or invading duodenum or bile duct	Beyond the pancreas but without involvement of superior mesenteric artery
T4	Tumor invading adjacent organs (stomach, spleen, colon, adrenal gland) or the wall of large vessels (celiac axis or the superior mesenteric artery)	Involvement of celiac axis or the superior mesenteric artery (unresectable tumor)
Stage definition		
I	Stage T1, N0, M0	NA
IIa	Stage T2, N0, M0	NA
IIb	Stage T3, N0, M0	NA
IIIa	Stage T4, N0, M0	NA
IIIb	Stage Any T, N1, M0	NA
IV	Stage Any T, any N, M1	NA
IA	Stage NA	T1, N0, M0
IB	Stage NA	T2, N0, M0
IIA	Stage NA	T3, N0, M0
IIB	Stage NA	T1-T3, N1, M0
III	Stage NA	T4, any N, M0
IV	Stage NA	Any T, any N, M1

Parametro T



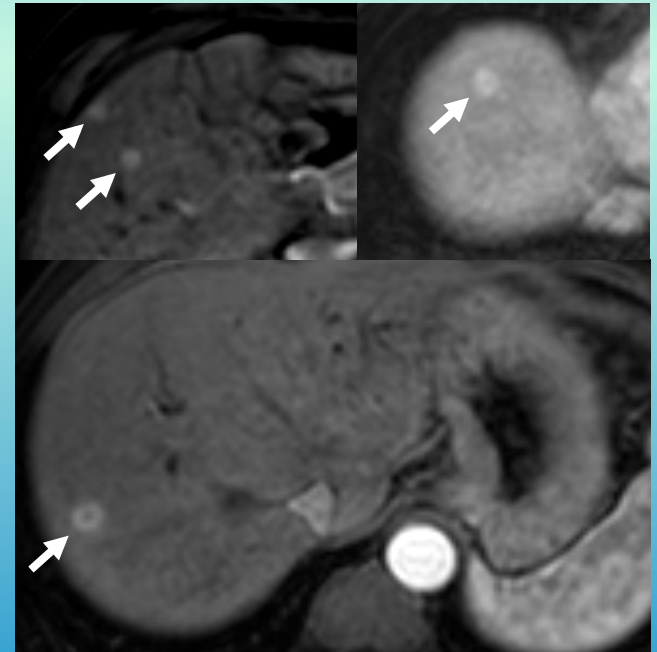
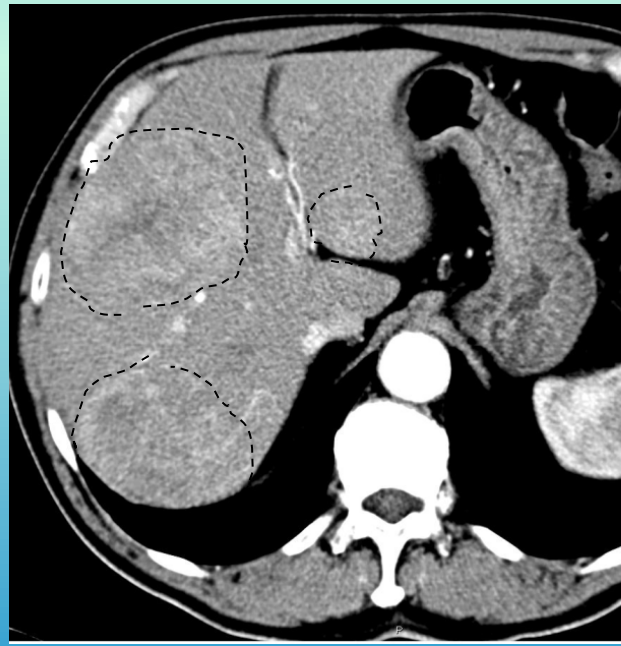
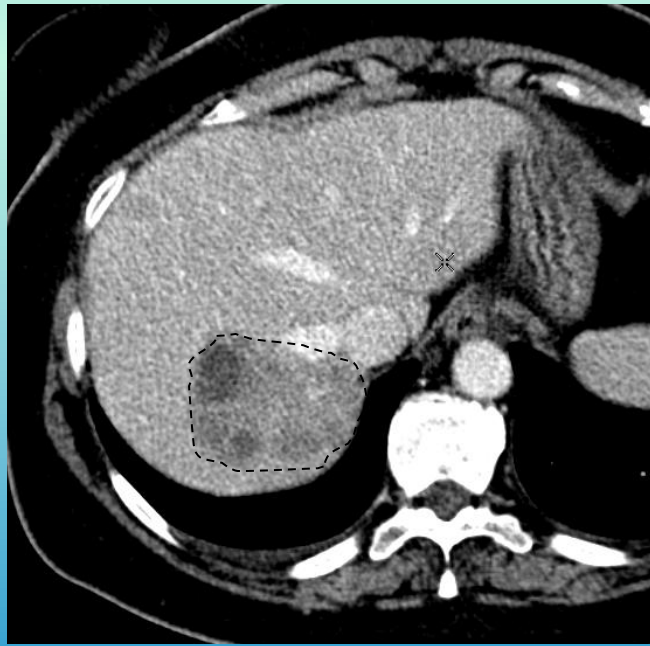
Parametro M

Fegato, osso, polmone, encefalo, cuore, ovaie, mammella, tiroide, cute, surrene, rene

Fegato

interessamento unilobare	20-25%
interessamento bilobare	10-15%
metastasi multifocali diffuse	60-70%

Neuroendocrinology 2012;95:157-176



TC vs RM

Panoramica

Accurata nello studio vascolare

Elevata risoluzione spaziale (voxel 0,7 mm)

Facilmente disponibile



Campo di vista limitato

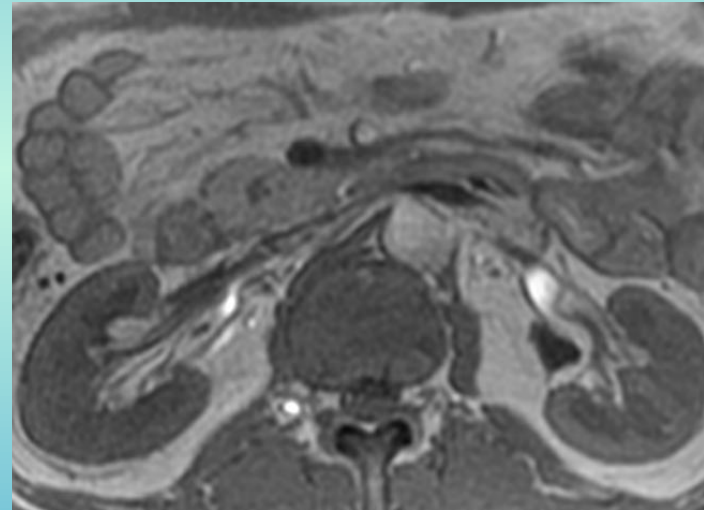
Accurata nello studio vascolare (se pz collabora!)

Sufficiente risoluzione spaziale (slice 3 mm o volum.)

Maggiore risoluzione di contrasto tissutale

Maggiore sensibilità per meta epatiche

Maggiore specificità per lesioni cistiche



QUANDO LA RM?

Ricerca di meta epatiche se TC non conclusiva

Studio di lesioni cistiche del pancreas (dd cistoadenoma sieroso microcistico!)

“problem solving”

2^o Convegno interregionale AME

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- Friuli Venezia Giulia
- Lombardia
- Trentino Alto Adige
- Veneto



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Dott. Francesco Cinquantini
UOC Radiologia Ospedale Maggiore
Direttore: dott. Libero Barozzi

GRAZIE!