

Some Cases Of GEP NET With Liver Metastases

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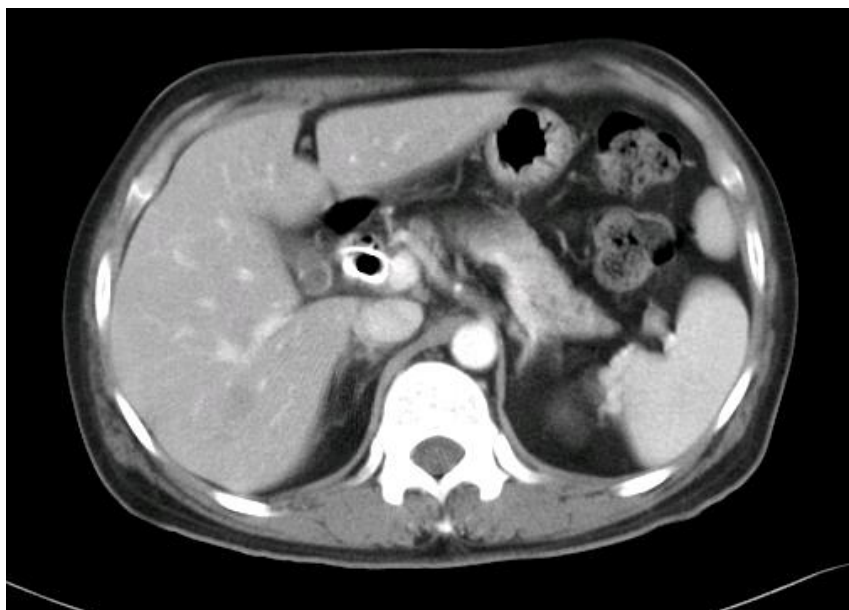
ESMO Preceptorship on GI NETs

2-3 Nov 2012

Indolent Liver Metastases... think NET

- Head of pancreas tumor - endoscopic ultrasound-guided (EUS) biopsy report:
 - Invasive moderately differentiated adenocarcinoma
 - Slow progression of disease for about 2 years

9 Nov 2005



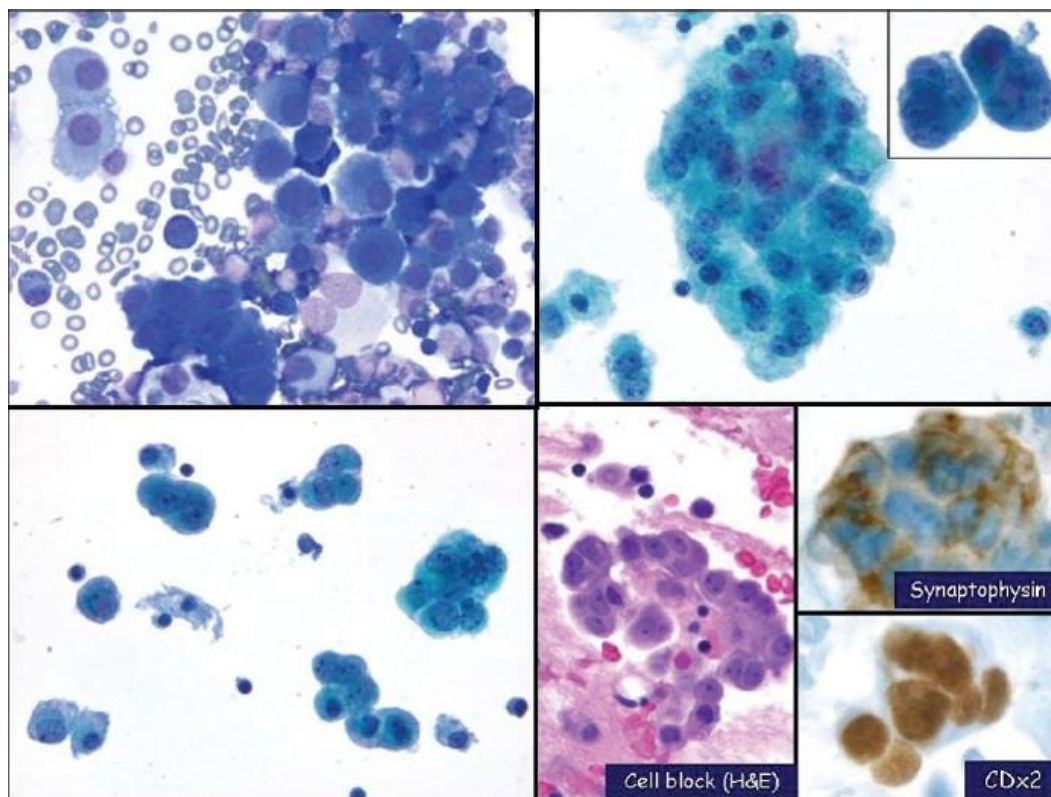
11/6/2012

3 Oct 2007



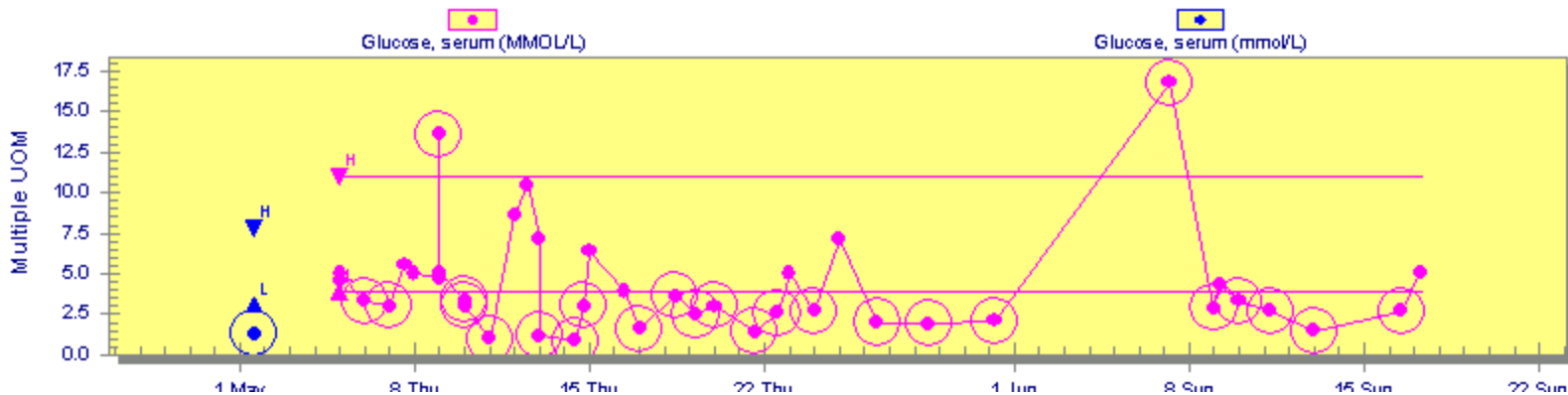
Review Of Diagnosis

- Biopsy of liver metastasis:
 - Metastatic neuroendocrine tumor of possible pancreatic origin.
 - CDX2, synaptophysin positivity
 - Low mitotic proliferative index



The Janus Phenomenon of NET

- A switch from non-functional to a functional tumor
- Features of an insulinoma

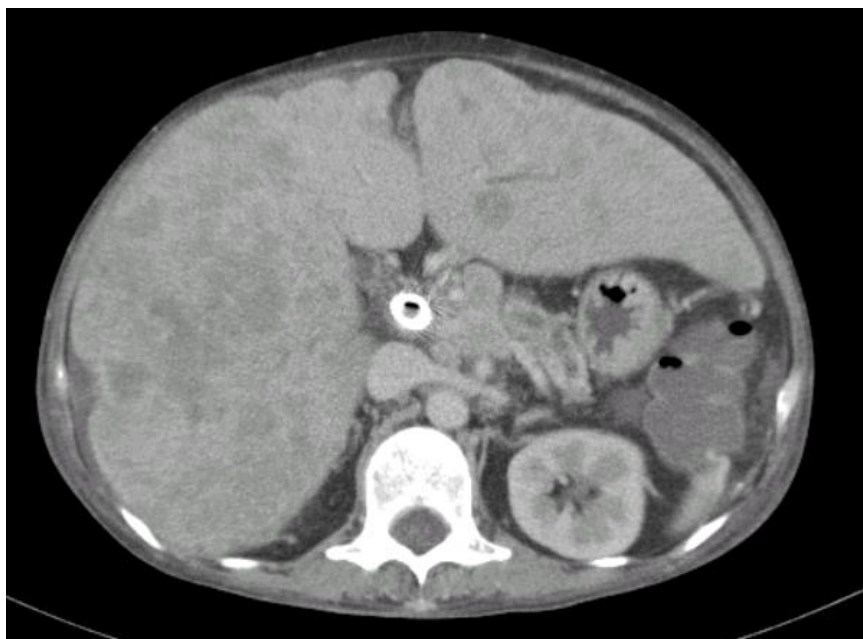


Insulin, serum	59.6	↑	[1.0-30.0 mU/L]
C-Peptide, serum	5.1	↑	[0.1-3.2 UG/L]

The Janus Phenomenon of NET

- A switch from non-functional to a functional tumor
 - Serotonin secretion

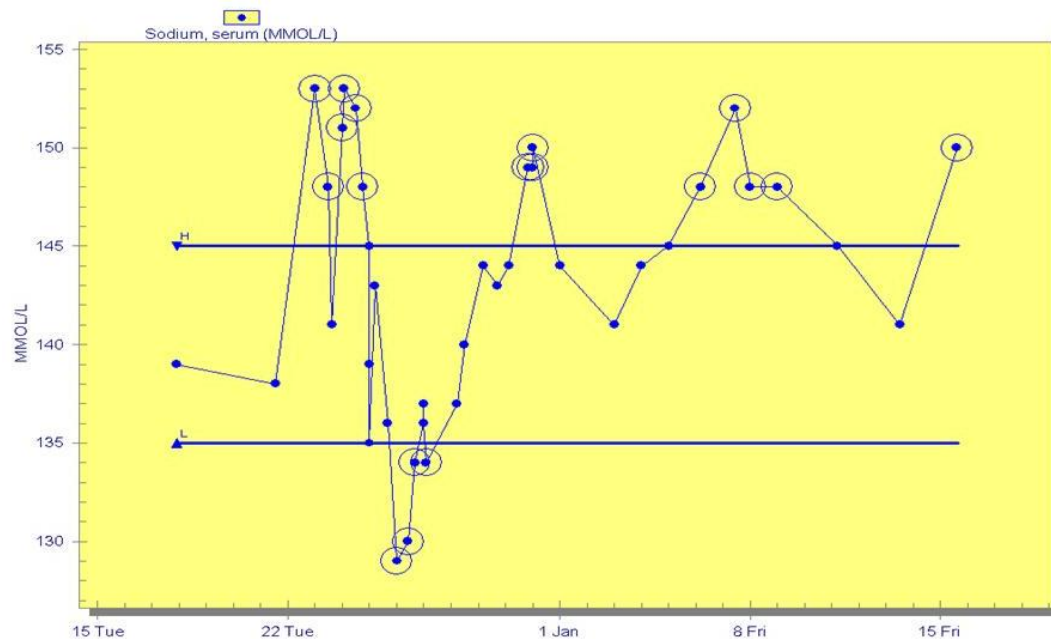
5-OH Indole Acetic Acid (umol/l), urine	522	[UMOL/L]
24-hour Urine Volume	1000	[700-2000 ML]
5-HIAA, 24 Hr	522 ↑	[3.5-41.0 UMOL/DAY]



Anecdotal Caveats In NET

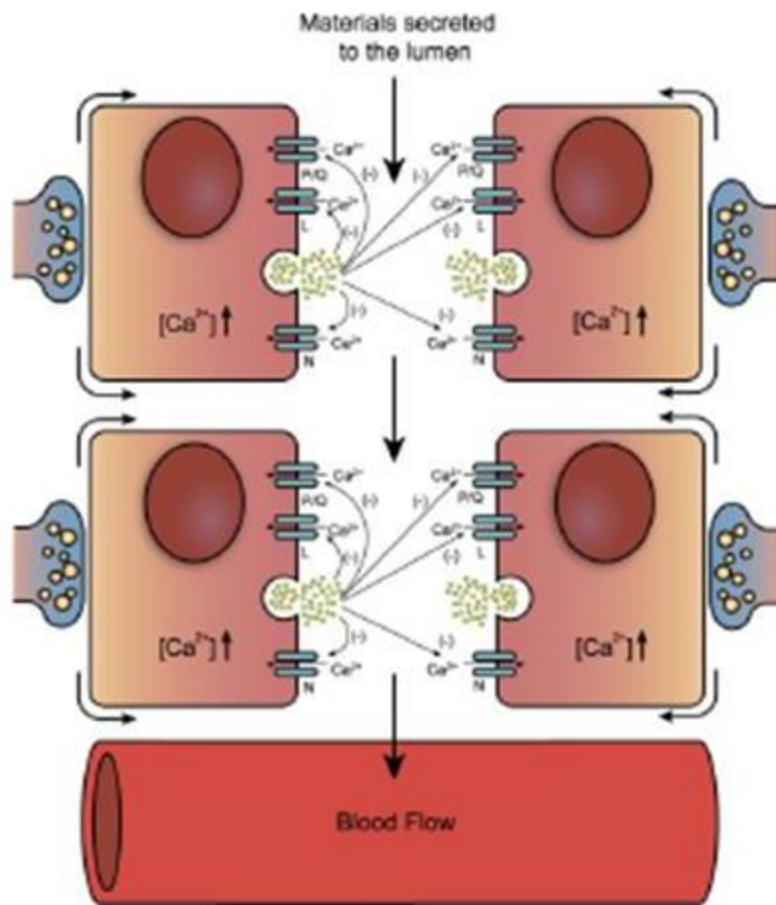
■ Urine 5HIAA is not elevated all the time in “carcinoid” syndrome.

- Chromogranin A serum
 - >600 ug/L (0-100 ug/L)
- 24H urine 5HIAA
 - 12.6 (3.5-41 umol/day)
- Pancreatic polypeptide
 - 355 (<500 ng/L)



Anecdotal Caveats In NET

- Calcium infusion induced carcinoid / VIPoma crisis



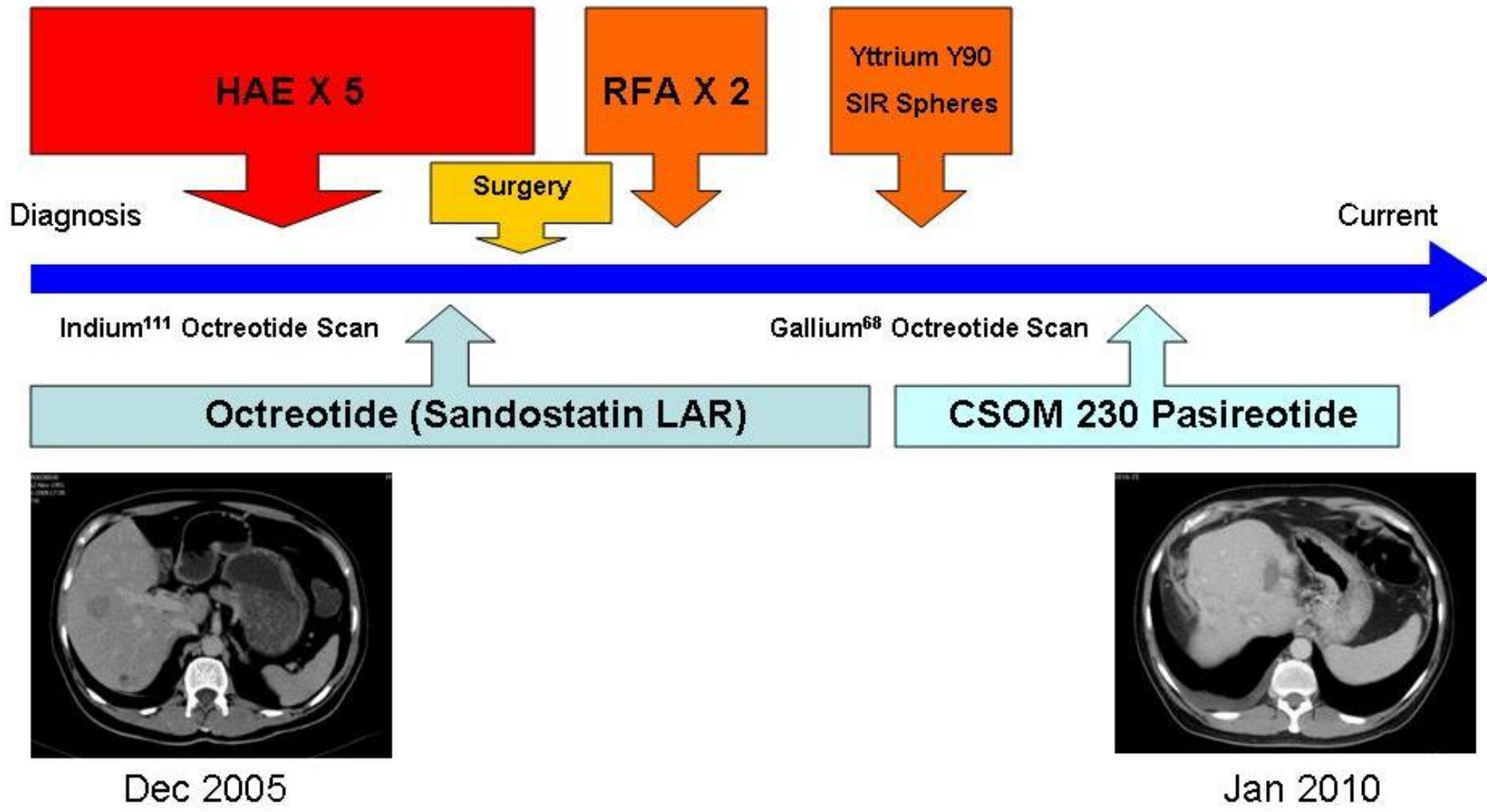
Carcinoid Syndrome In Absence Of Liver Metastases

- The presence of liver metastases was classically taught to be de rigueur when carcinoid syndrome is evident. Serotonin metabolised during first pass effect in liver would not result in carcinoid syndrome systemically.

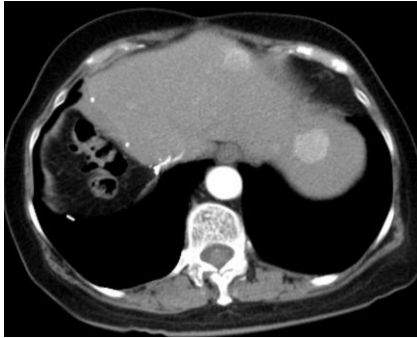
- Caveat 1: Tumor gaining access to systemic circulation bypassing portal venous drainage.
 - NET arising from ovarian teratoma
 - Bowel NET invading ovaries by contiguous tumor extension
 - Metastases to ovaries

- Caveat 2: Occult liver / systemic metastases not discernible on conventional CT / MR / PET scans even using somatostatin receptor analogue-linked radiotracers.

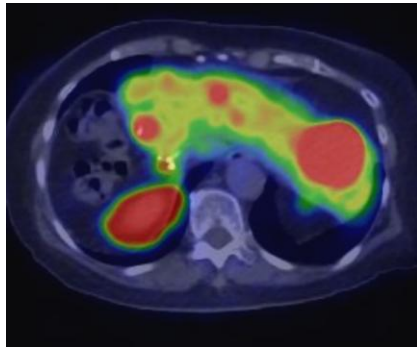
Meaningful Liver-Directed Therapeutic Advances



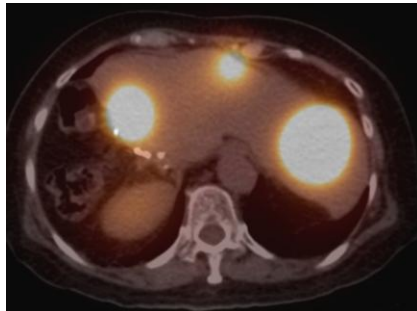
Meaningful NET Therapeutic & Diagnostic Advances



Contrast-
Enhanced CT

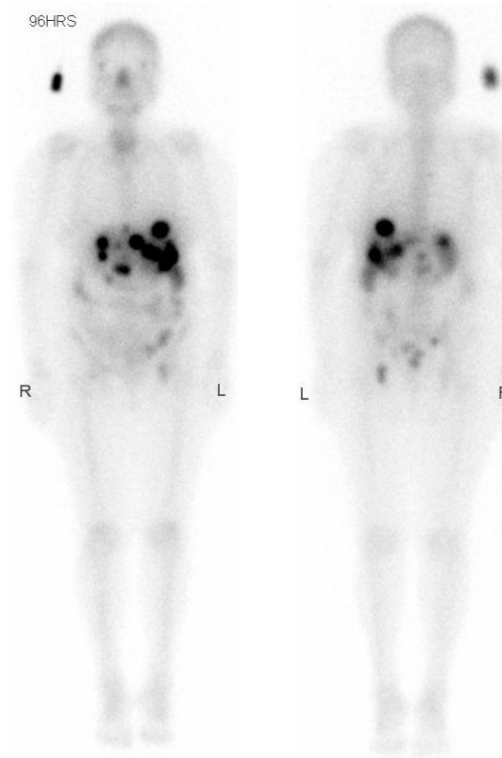


Ga-68
DOTA-
TATE
PET/CT



Lu-177
DOTA-
TATE
PRRT
SPECT/CT

First Patient Lu-177 PRRT





ESMO

Designated Centers
of Integrated
Oncology and
Palliative Care

Thank you

Raffles Cancer Centre

