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Metastatic Typical Bronchial Neuroendocrine Tumor

- ◉ 65 years-old woman
- ◉ Not known comorbidities
- ◉ Retired, worked in textile industry
- ◉ ECOG PS 0
- ◉ August / 2011
 - Presented an asymptomatic solitary pulmonary nodule on **routine chest radiograph**
 - In an evaluation by internal medicine, she was diagnosed with **typical bronchial neuroendocrine tumor** by transthoracic needle biopsy
 - Immunohistochemistry: Synaptophysin + ; NSE + ; CgA + ; TTF1 **Inconclusive**.

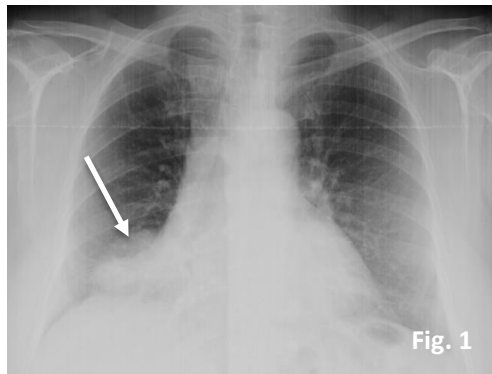


Fig. 1 – Chest radiograph

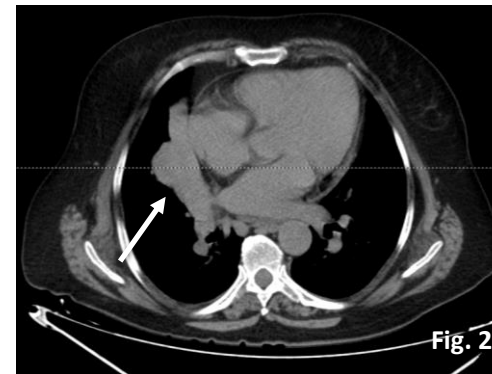


Fig. 2 – CT scan:
69mm mass in the
right middle lobe

- ◉ November / 2011 - Referred to our institution
 - Chest CT Scan and 99mTc-HYNIC-TOC Scintigraphy: **negative for metastatic disease**

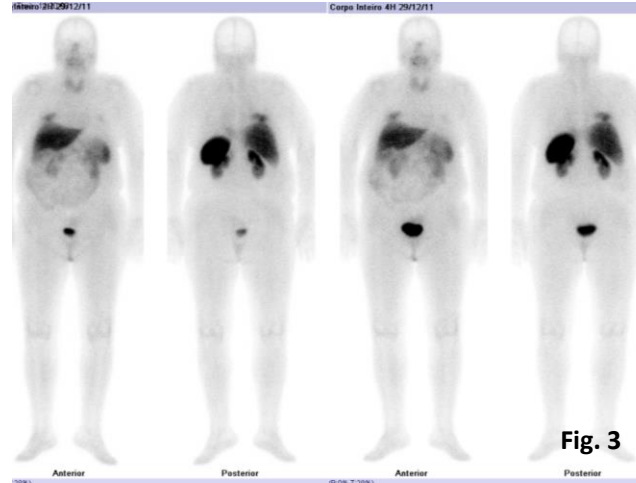


Fig. 3 – 99mTc_HYNIC
TOC: negative for
metastatic disease

- ◉ February / 2012
 - **ECOG PS 0; Asymptomatic;**
 - **Middle right lobectomy** – Histology: Typical low-grade bronchial NET. Scarcely mitotic figures (<2 per 10 HPF), without necrosis – **pT2pN0**
 - **MDT Decision:** Posttreatment surveillance - **Regular follow-up**

⦿ November / 2013

- **Chest CT Scan:** Multiple nodular right pleural thickening; right pleural effusion; hilar and mediastinal adenopathy; D2 and D10 vertebral lesions; splenic and liver involvement (multiple liver metastasis)

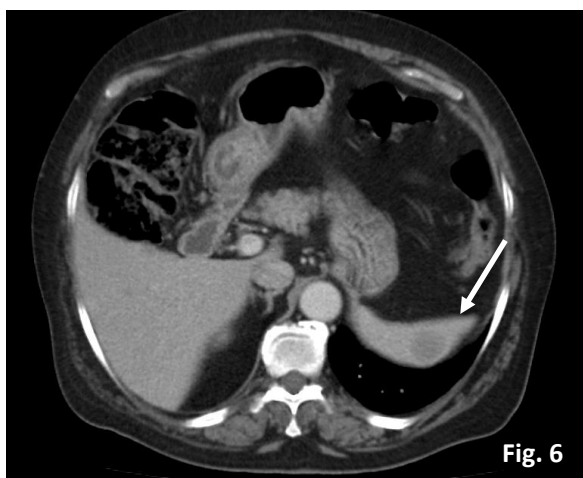
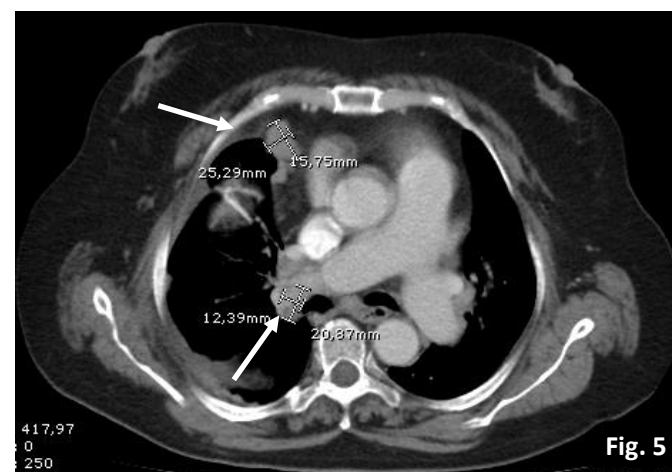
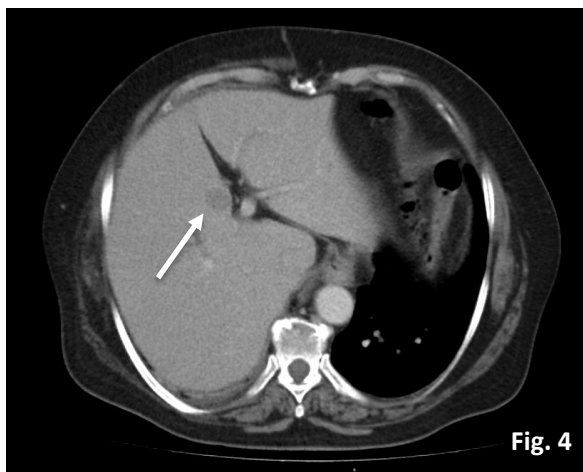


Fig. 4, 5, 6, 7 – Chest CT Scan: metastatic lesions

⊙ December / 2013

- 68-Ga DOTATATE PET/CT: positive in pleuropulmonary, liver and bone lesions

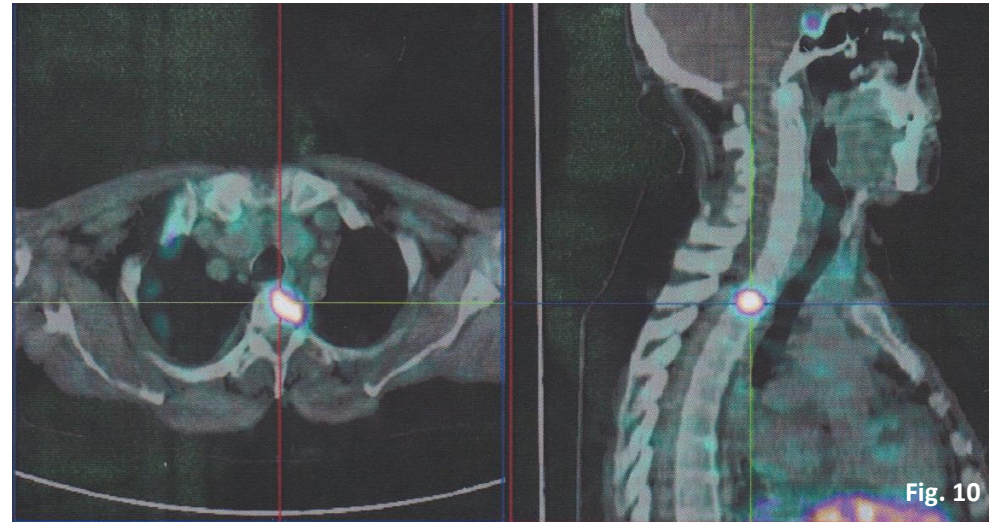
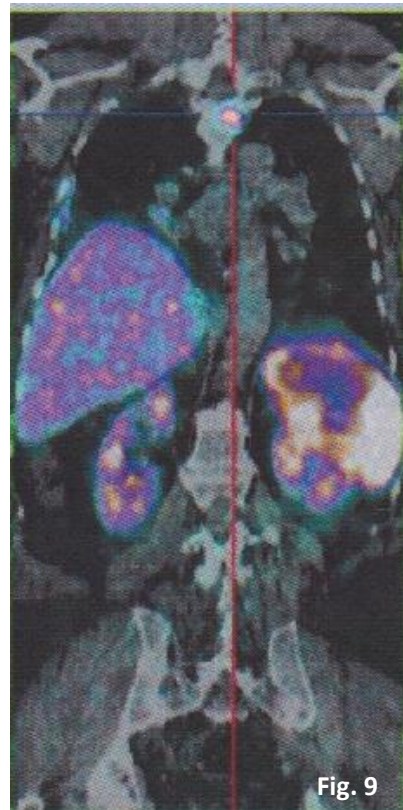
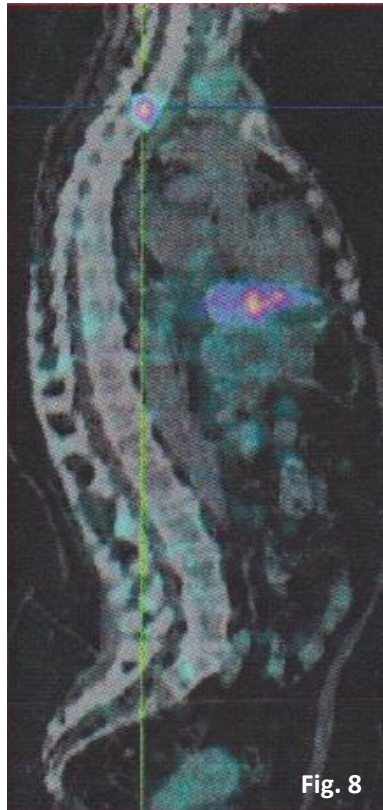


Fig. 8, 9, 10 – 68-Ga
DOTATATE PET/CT

⊙ January / 2014

- **ECOG PS 0-1; Slight upper back pain; diarrhea;**
- Disease recurrence;
- **MDT Decision:** Proposed treatment - Octreotide LAR (30mg) + Palliative chemotherapy with platinum-based regimen (Cisplatin plus Etoposide).

⊙ June / 2014

- **Response assessment:** Cisplatin plus Etoposide x 6 cycles; Octreotide x 5 cycles
 - **ECOG PS 1; Alopecia, GI nausea;** No other major toxicities;
 - Chest-abdomen CT Scan: **Stable disease;**
 - Proposed treatment: **Maintenance treatment with Octerotide**

⊙ February / 2015

- Recurrent episodes of bronchospasm → emergency care
- ECOG PS 1-2
- → Clinical progression(?)

⊙ April / 2015

- 68-Ga DOTATATE PET/CT: **Disease progression**

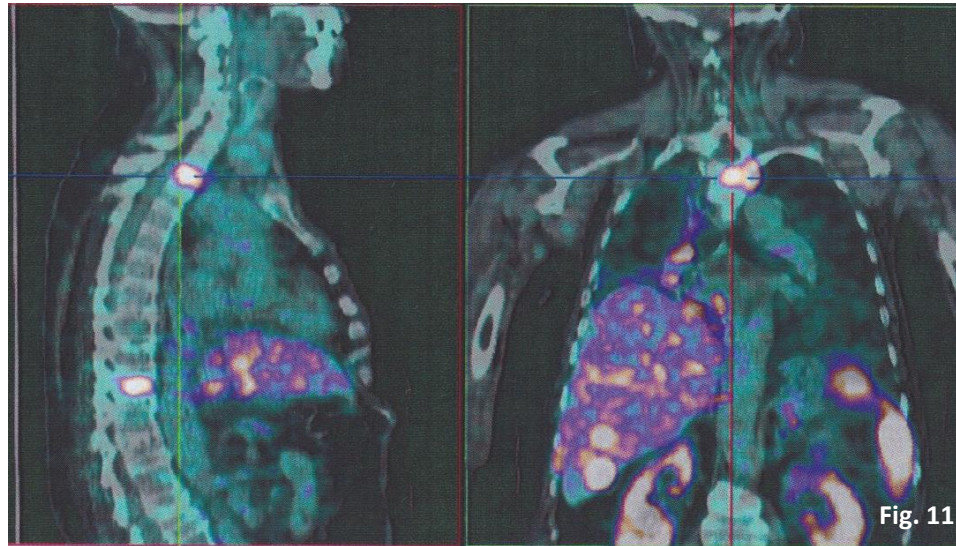


Fig. 11 – 68-Ga
DOTATATE PET/CT

- Stopped octreotide after 16 cycles

- ◉ May / 2015
 - ECOG PS 1; Upper back pain; Mild respiratory symptoms
 - **MDT Decision: Peptide receptor radioligand therapy (PRRT)**
 - 26/07/2015 until 18/12/2015
 - **No major toxicities**

- ◉ April / 2016 - **Present**
 - 68-Ga DOTATATE PET/CT: **Partial Response** → **Regular follow-up;**

 - Last observation in February/2017;
 - **ECOG PS 0; Asymptomatic.**

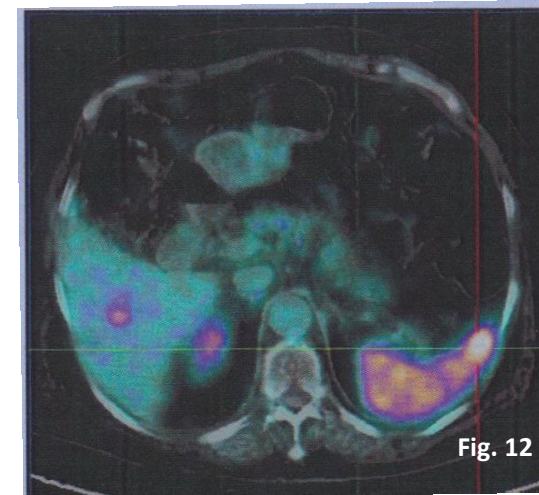


Fig. 12

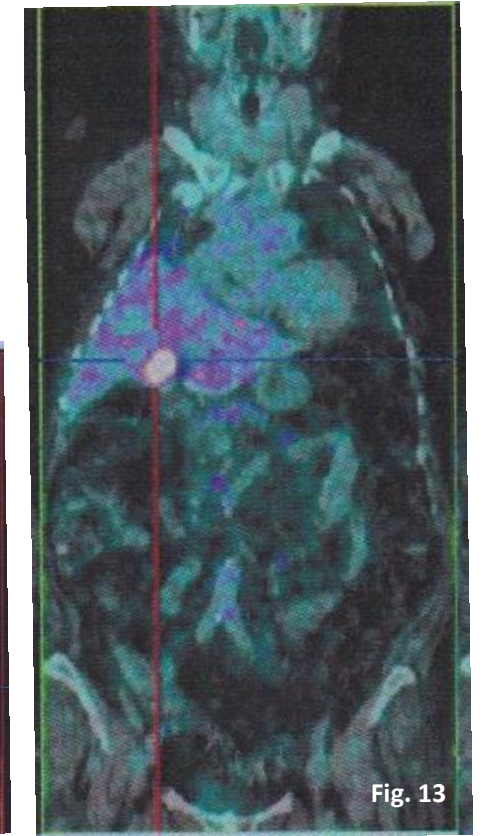


Fig. 13

Fig. 12, 13 – 68-Ga
DOTATATE PET/CT

◉ Next?...

What is the right time
to start
chemotherapy?

Was the used
chemotherapy
regimen the best
choice?

Rebiopsy?

Should we expect the
antiproliferative effects
of SSAs in bronchial
NETs?

Obrigado!!

