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Chronic Pulmonary Aspregillosis (CPA)

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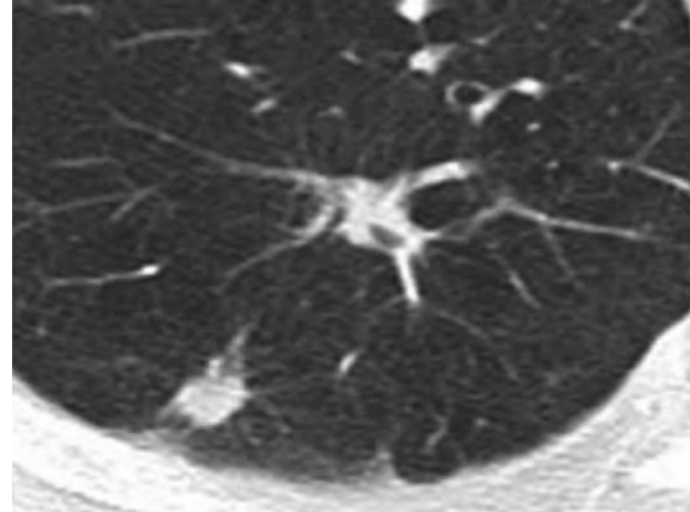
Chronic Pulmonary Aspergillosis (CPA)

CPA- Imaging findings / *Aspergillus* nodules

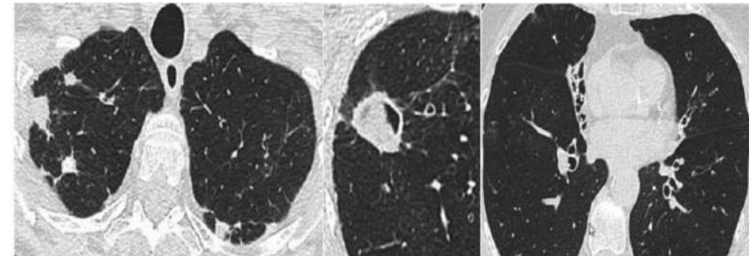
Very similar in appearance to malignancy, coccidioidal nodules, NTM and actinomycosis as well as rheumatoid nodules

Rounded in appearance with low attenuation or cavitation within.

Single or multiple and have an area of central cavitation.



Nodule of the right, upper lobe, with irregular and slightly spiculated borders

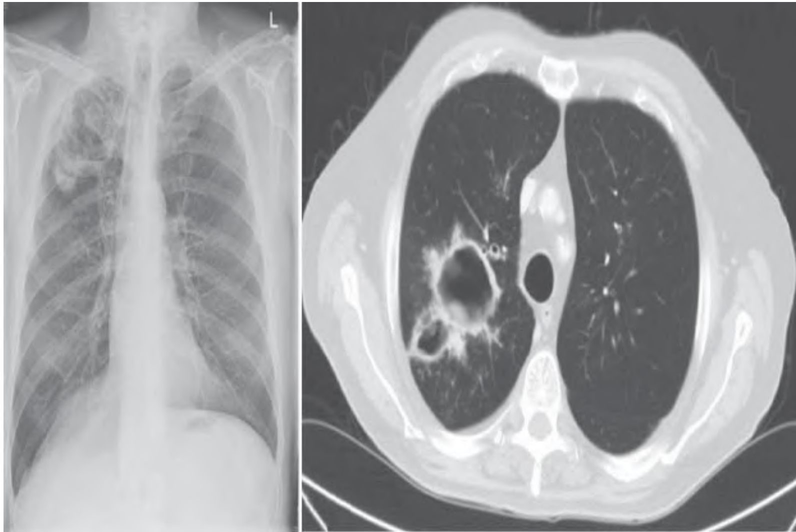


Aspergillus nodules, of variable size and borders, and a fungus ball filling a cavity with a wall of variable thickness in a patient with pre-existing bronchiectasis and cicatricial atelectasis of the middle lobe.

Yoon SH et al Acta Radiol 2011; 52: 756–761,
Lim J et al. Int J Tuberc Lung Dis 2010; 14: 1635–1640,
Baik JJ et al. Respirology 1999; 4: 31–35

Chronic Pulmonary Aspergillosis (CPA)

CPA- Imaging findings / SAIA



a. Dual cavity with moderately thick walls
b. External irregular edge
c. Some material within the cavity on an almost normal lung background.

Absence of any prior cavitary lesion is usual

Usually a single area of consolidation is found in an upper lobe which progresses over days or weeks with cavitation

Sometimes the predominant feature is a thin walled cavity that expands over 1–3 months

Pleural thickening and fungus balls may occur as well as pneumothorax and pleural effusion

An air-crescent sign may be seen, a probable sign of the development of necrosis, thereby an indication of the worsening of the disease

Greene R. Med Mycol 2005; 43: Suppl. 1, S147–S154, Baxter CG et al Thorax 2011; 66: 638–640, Franquet T et al. Radiographics 2001; 21: 825–837, Rajalingham S, J Med Case Rep 2012; 6: 62, Schweer KE et al Dtsch Med Wochenschr 2014; 139: 2242–2247.

Chronic Pulmonary Aspergillosis (CPA)

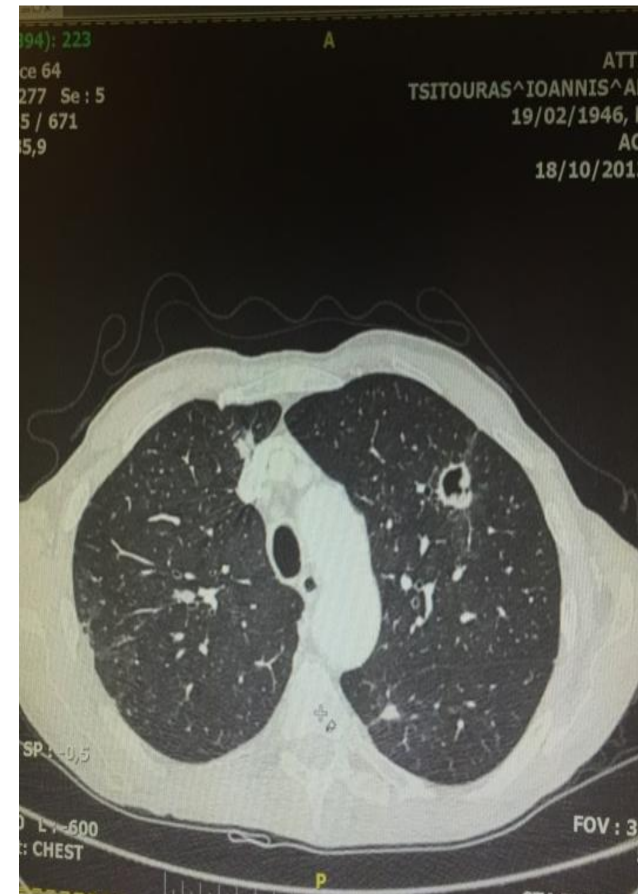
CPA- A case of SAIA

19/7/2013: Admission to the hospital :

- Haemoptysis
- Cavity lession
- Checked for TB
- (+) Mantoux
- Positive galactomannan antigen bronchial (BAL)/serum
- CT angiography. Absence of visible bleeding site
- Voriconazole

18/10/2013 : New bleeding

18/03/2014: Discontinuous treatment for Aspergilossis



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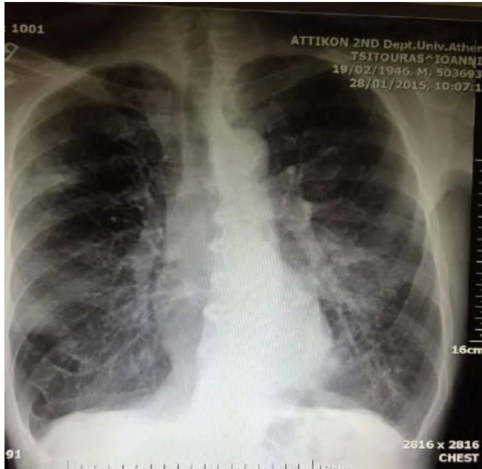
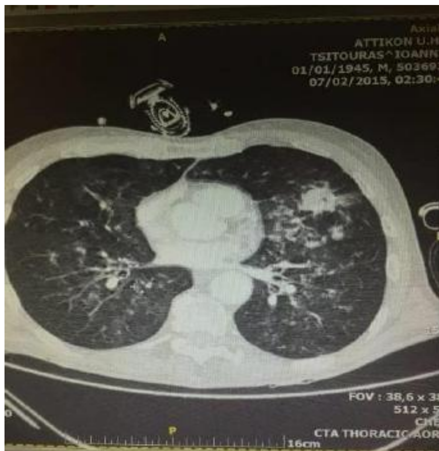
CPA- A case of SAIA

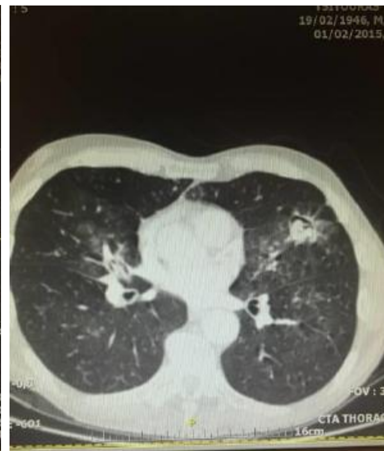


Male 69 yrs

28/01/2015 : 3 episodes of massive haemoptysis
06.02.2015 : Admission to ICU due to:

- massive haemoptysis
- aspiration
- desaturation
- loss of consciousness
- Intubation- mechanical ventilation





- **2006**: prostate cancer, prostatectomy
- **2013**: radiotherapy 03-23/05/2013
- **2013**: **nephrotic syndrome / AKF**
  - kidney biopsy → diffuse proliferative glomerulonephritis
  - IGC: immunocomplex associated immunodifficiency /chronic thrombotic microangiopathy possibly due to radiotherapy
- Methylprednisolone and cyclophosphamide.
- Oral methylprednisolone

Chronic Pulmonary Aspergillosis (CPA)

CPA- A case of SAIA

During the next two years

Symptoms

- Weakness
- Weight loss
- **Haemoptysis**

Tests

- **8 CT and CTA**
- **Never embolized**

Therapeutic interventions in summary

- Voriconazole 07/13-03/14 (9 months)
- Patient stops therapy for 4 months
- Restarted voriconazole 07/14 stops in 10/14 (3 months)
- Patient stops therapy again for 2 months
- Haemoptysis 04/01/15 voriconazole was restarted
  - New episode of haemoptysis
  - Admission to the Internal Medicine Clinic