It's all in the lips…

An interesting case

Claire Naftalin

- 31 year old **South African** lady
- **HIV positive November 2004**
- RMP recently disclosed HIV positive
- At initial visit – describes:
  - Occasional fevers
  - Menorrhagia

- **CD4 480 (29%)**
- **VL 33,500**
- **Hb 8.5**, MCV 90.3, WCC 3.7, Eos norm, Plt 206
- **Albumin 24**
- Haematinics /electrophoresis normal
- Polyclonal IgG raised
- Hepatitis screen negative
- Chest x-ray – NAD
- 3x EMU – negative for TB

- **CT CAP 31/01/2005**
  - Bilaterally enlarged axillary LNs (1.2cm). 2 small areas of ground glass density in the right middle lobe inferiorly.
  - Upper abdominal viscera unremarkable, mildly enlarged iliac LNs (1.3cm)
- **Bone marrow aspirate 31/01/05**
  - Cellular reactive marrow

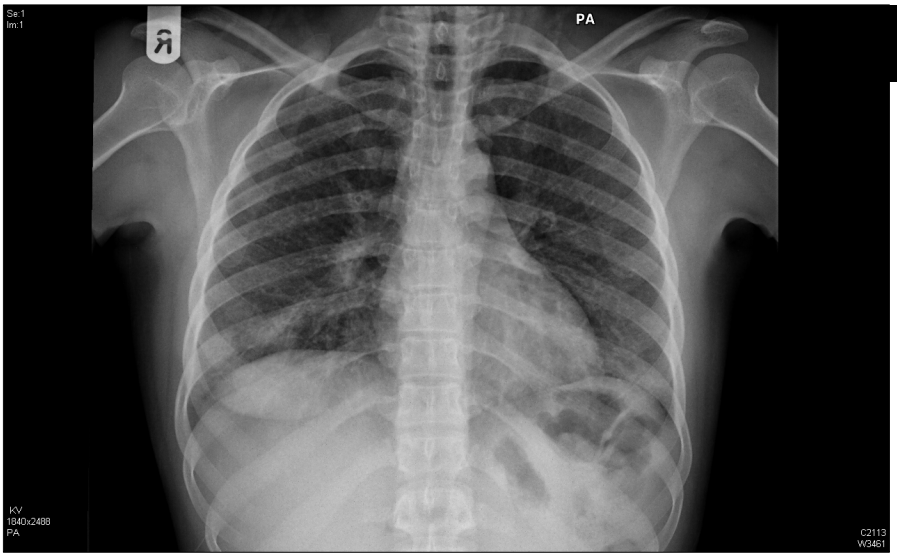
- **Bronchoscopy** – April 2005
  - Normal, no AFB, No PCP, no growth on extended cultures, cytology NAD
- **Lung Function Tests**
  - Normal

- Repeat **CT CAP in July 2005** – no change from previous
- Discussed with **Respiratory medicine**, but not reviewed as clinically well
- Did not attend services again until June 2007

- Issues **June 2007**:
  - **CD4 491 (25%), VL 27,817**
  - **CD8 1194 (61%)**
  - Anaemia – Hb 8.0, MCV 88.1
  - Other Investigations: TFTs/Malaria film/CRP – normal
  - Autoimmune screen negative
  - Investigations for haemolysis - NAD
  - Blood film – Marked Rouleaux

- **November 2007**:
  - describes 'tight' chest intermittently
  - Wheezy on exertion
  - Cough – productive of yellow sputum
  - Weight stable
  - No fever/sweats

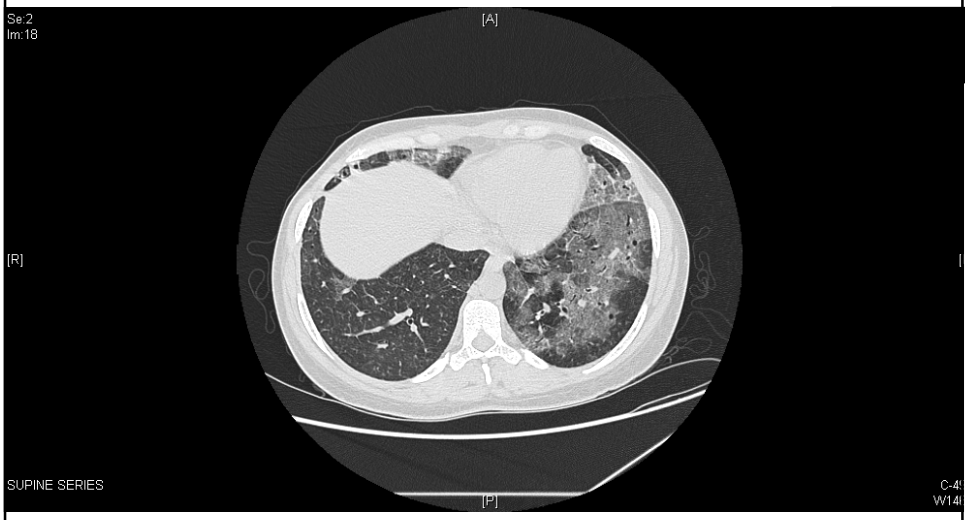
- **Examination:**
  - Chest clear
  - No lymphadenopathy
  - HS normal
  - Mouth NAD
  - Weight stable



Investigations

- Chest symptoms continued

- **Examination**:
  - Bilateral inspiratory wheeze
  - Bilateral inspiratory crackles to mid-zone
  - No parotid enlargement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SUPINE SERIES
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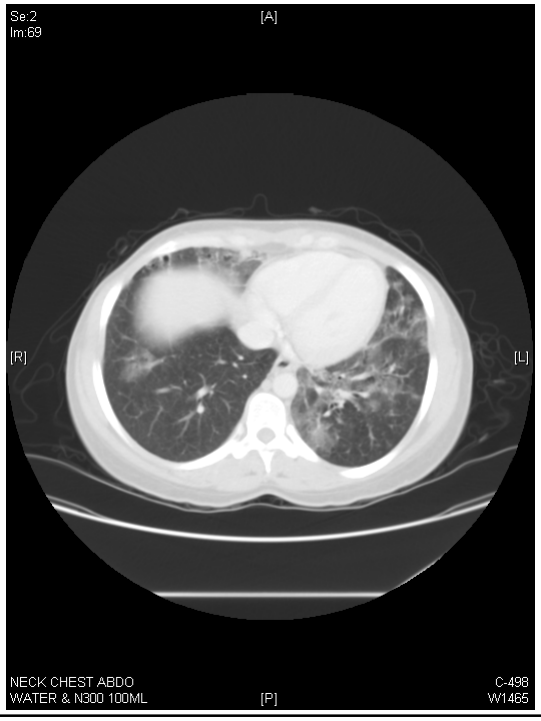
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NECK CHEST ABDO
WATER & N300 100ML
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C-498
W1465

Differential diagnoses?

Differential diagnoses?

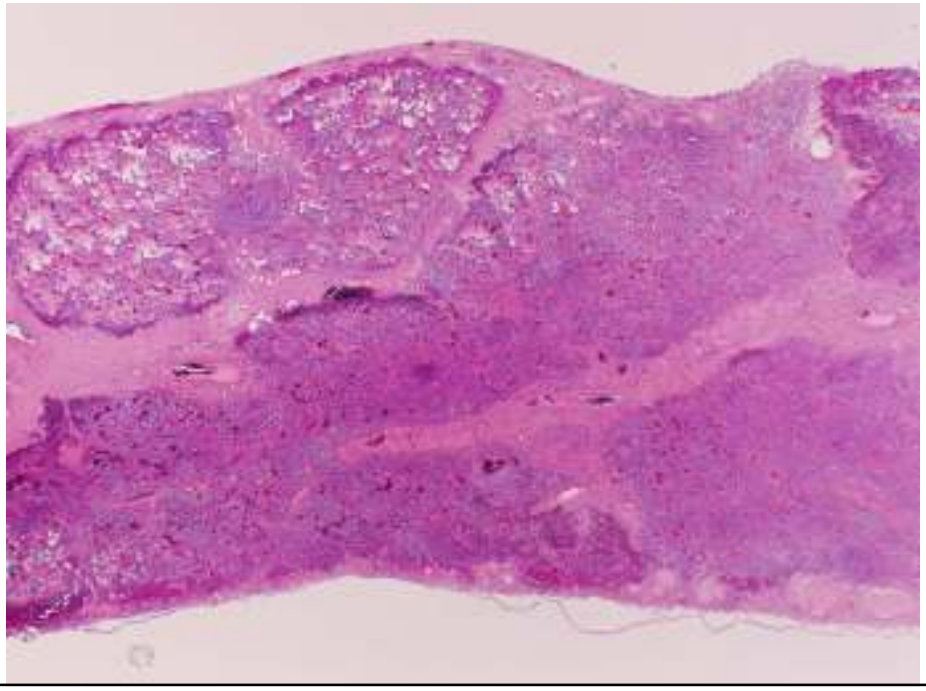
- **Infection**:
  - Bacterial pneumonia
  - TB
  - Atypical mycobacteria
  - Fungi (e.g. Histoplasma)
  - PCP
  - Protozoa (e.g. Leishmania)
- **Interstitial lung disease**
- **Sarcoidosis**
- **Malignancy**:
  - Lymphoma
  - Castleman's
  - Other occult malignancy
  - Kaposi's sarcoma

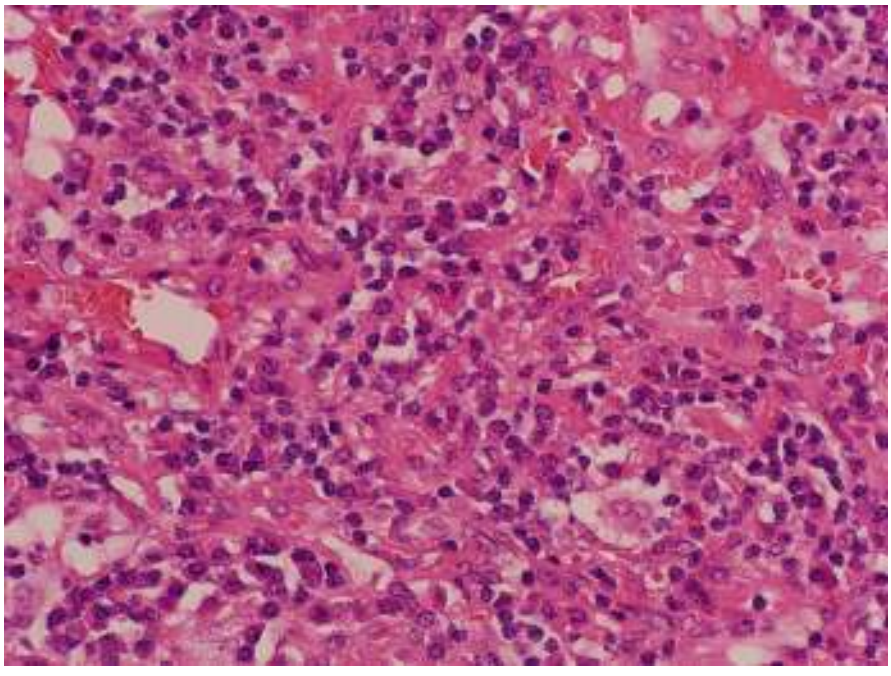
Lung Function Tests

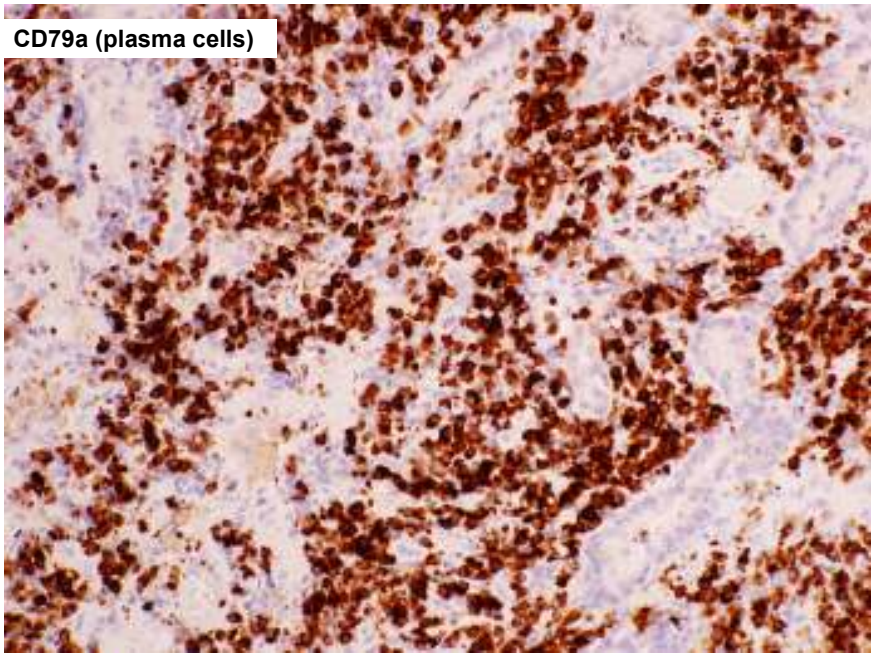
	Aug 2005	Sept 2009
FEV1	2.41	1.98
FVC	2.67	2.34
FEV1/FVC	91	85
Corr TLCO (% of predicted value)	92%	61%

Investigations

- Repeat **bronchoscopy**:
  - Essentially normal; TB cultures, cytology, M,C+S, virology and mycology negative
- Referred for **lung biopsy**:
  - Lingular and left lower lobe biopsy taken







Histological features

- Diffuse lymphoid and plasmacytic infiltrate involving the interstitial septae and the alveoli, almost obliterating them
- Lymphocytes are pre-dominantly CD3+, CD8+ with few CD4+ cells.
- Non-caseating granulomas seen in left lower lobe which spill out into the alveoli

Lymphocytic Intersitial Pneumonitis

Audience participation

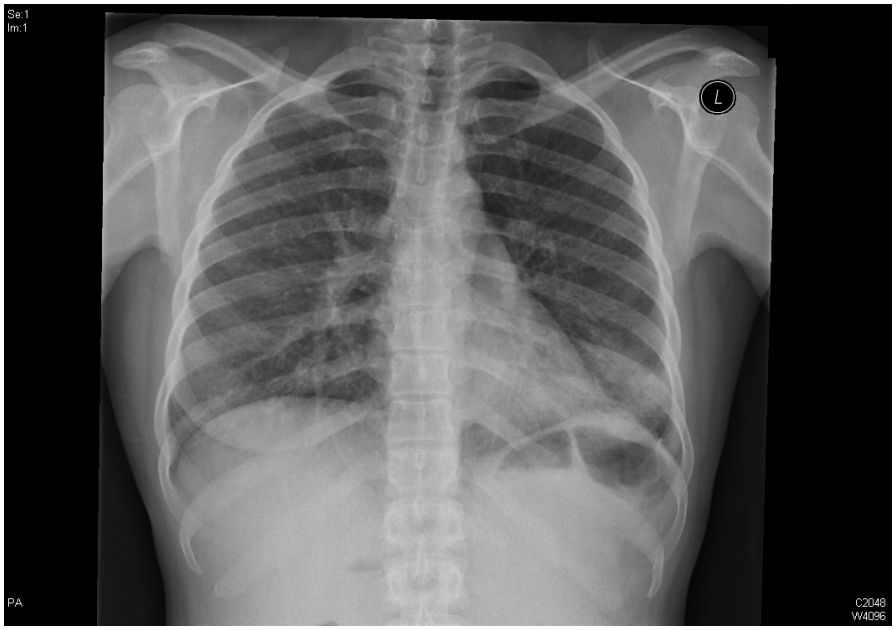
- How best to treat LIP?
  - 1. Nothing can be done
  - 2. Antiretrovirals +/- steroids
  - 3. Antiretrovirals +/- immunoglobulins
  - 4. Antiretrovirals +/- immunosuppressants such as Aziothioprine

Clinical course

- Started antiretrovirals Oct 2009
  - Truvada/ Atazanavir/ Ritonavir
- CD4 447(14%) VL 174 (Dec 09)
- CD8 2370 (74%)
- No real improvement in symptoms

Lung Function Tests

	Aug 2005	Sept 2009	**Jan 2010**
FEV1	2.41	1.98	**2.14**
FVC	2.67	2.34	**2.53**
FEV1/FVC	91	85	**85**
Corr TLCO (% of predicted)	92%	61%	**63%**



- February 2010: No improvement in symptoms
- VL<40
- Decision made to add in high dose steroid therapy with PCP prophylaxis
- BUT by April 2010: symptoms markedly improved

Learning Points for Lymphocytic Interstitial Pneumonitis

- Part of a spectrum of lymphocytic infiltrative disorders including DILS
- Rare in HIV positive adults, more common in children
- Symptoms – non-productive cough, exertional dyspnoea
- May be asymptomatic
- Radiology shows interstitial picture
  - bilateral reticular and ground glass opacities predominantly in the lung bases

LIP

- Lung Function tests show restrictive picture
- Open lung biopsy is the preferred diagnostic test
- Treatment based on case reports
  - antiretrovirals +/- steroids
- Prognosis variable

Histology

- Interstitial infiltrates of:
  - Lymphocytes (polyclonal)
  - Plasma cells
  - Histiocytes
- Non-caseating granulomas
- Involves:
  - Alveolar septae
  - Subpleural areas
  - Intralobular septae
  - Lymphatics