

An Uncommon Sepsis

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- A 19-year-old male
- Febrile temperature with rigors for 5 days
 - Fell ill with a sore throat that passed and was followed by an upper right abdominal pain, worsening during inspiration
- Previously healthy, no chronic diseases

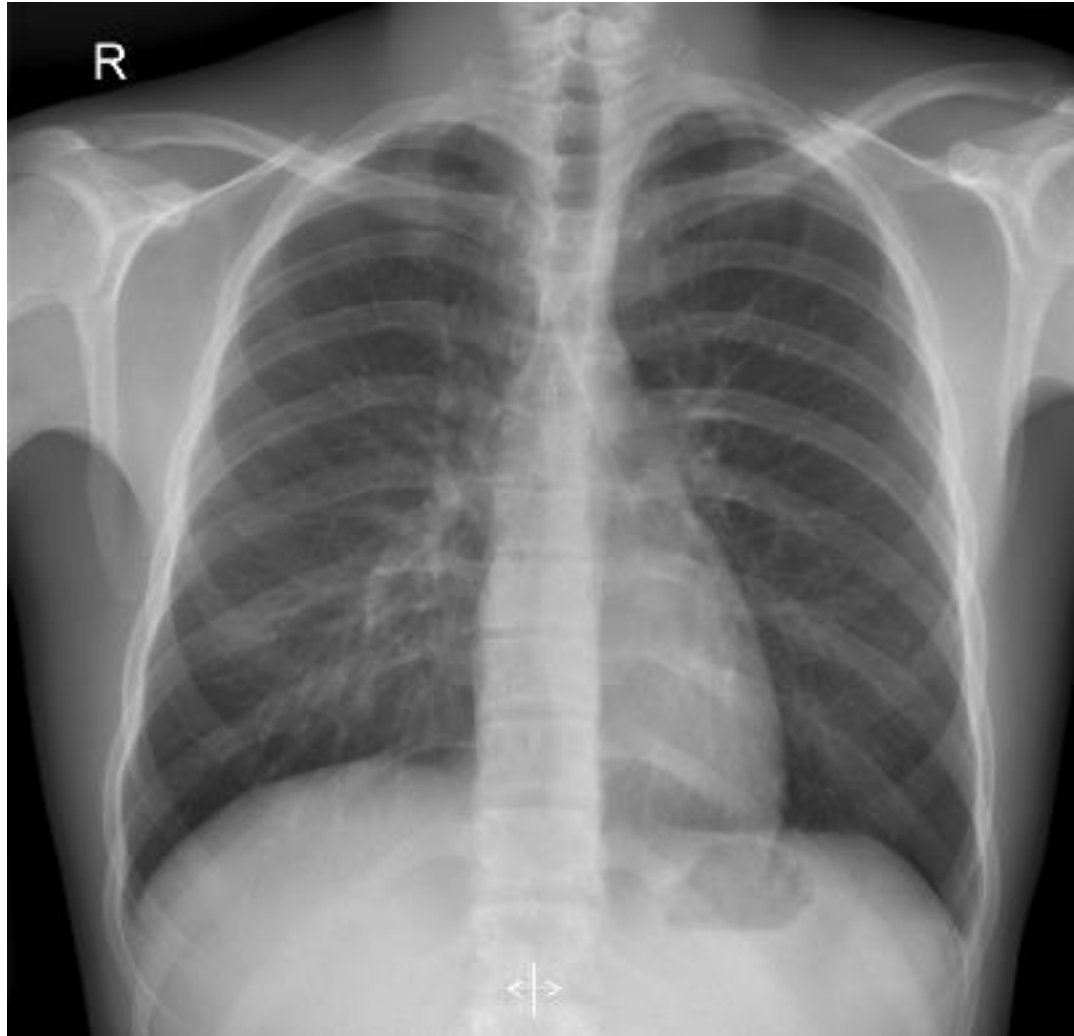
Analyses 07.11.13

- CBC
 - WBC 5.44 (4,5 .. 11 E9/L)
 - RBC 4.87 (4,2 .. 5,7 E12/L)
 - Hb 151 (134 .. 170 g/L)
 - Plt 110 ↓ (145 .. 390 E9/L)
 - **Neut% 90.4 ↑ (40 .. 80 %)**
- Clinical chemistry
 - **CRP 268 ↑ (<5 mg/L)**
 - **PCT 10.56 ↑ (<0.05 ng/mL)**
 - Creatinine 103 (62 .. 106 μmol/L)
 - Urea 7.6 ↑ (2.9 .. 7.5 mmol/L)

Radiology

- **Chest X-ray**
 - Normal
- **Ultrasound of abdomen and pelvis**
 - Enlarged spleen
- **Ultrasound of neck area**
 - Enlarged submandibular and upper cervical lymph nodes on the left

Chest X-Ray 07.11.13



Decision 1

- Patient is septic, the primary site of infection unknown
- Blood cultures, urine culture
- Initiation of empiric i.v. antibiotics with amoxicillin/clavulanic acid and infusion
- Emergency CT of abdomen-pelvis due to worsening abdominal pain

CT

- Minimal peritoneal fluid
- Enlarged spleen
- An infiltration with a central space at the base of the right lung

Decision 2

- The lungs are probably the primary site of infection
 - Chest CT the next day to evaluate the extent of pneumonia
- Considering atypical pneumonia – p.o. clarithromycin additionally

Chest CT 08.11.13

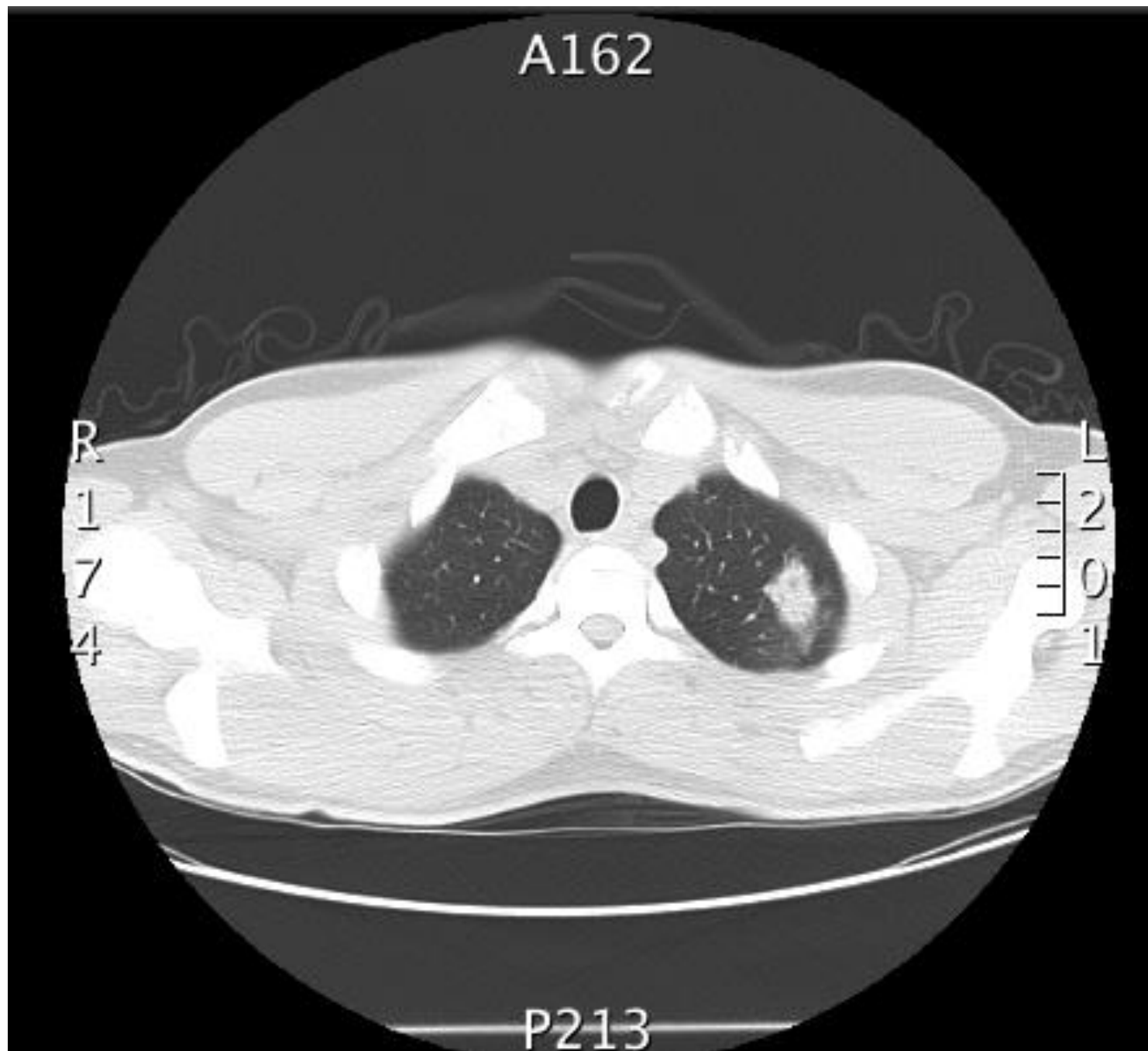
- Multi-focal pleuropneumonia

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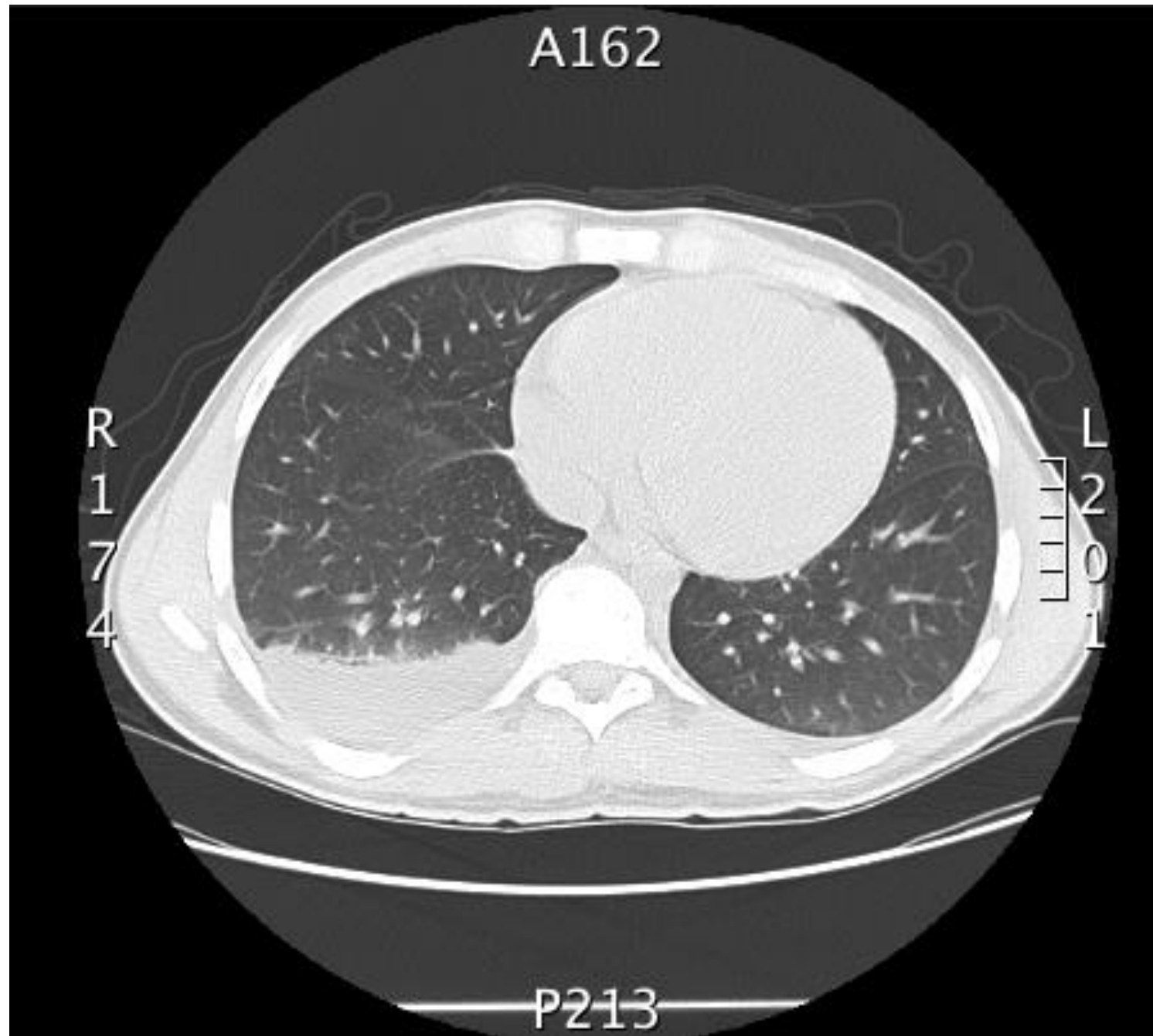


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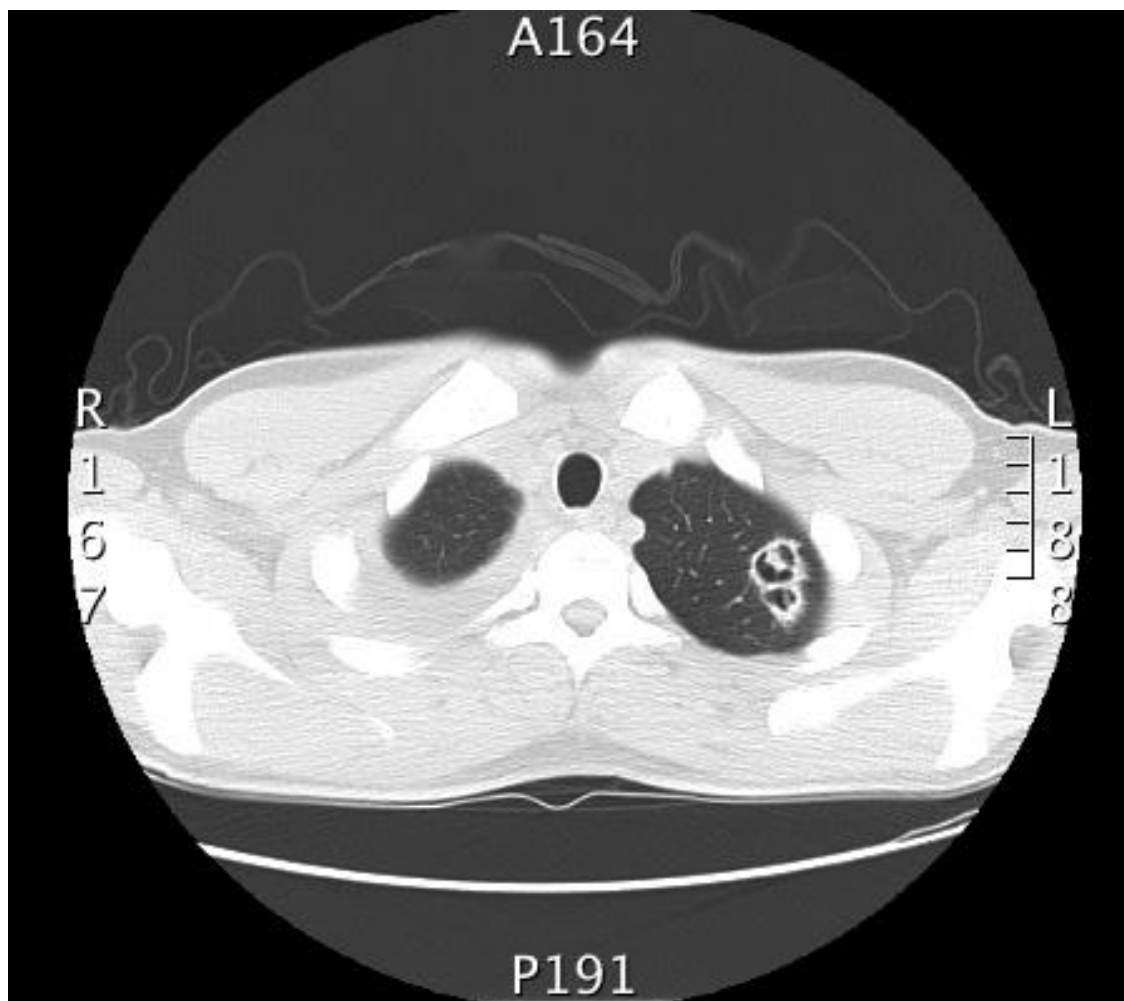
Serology

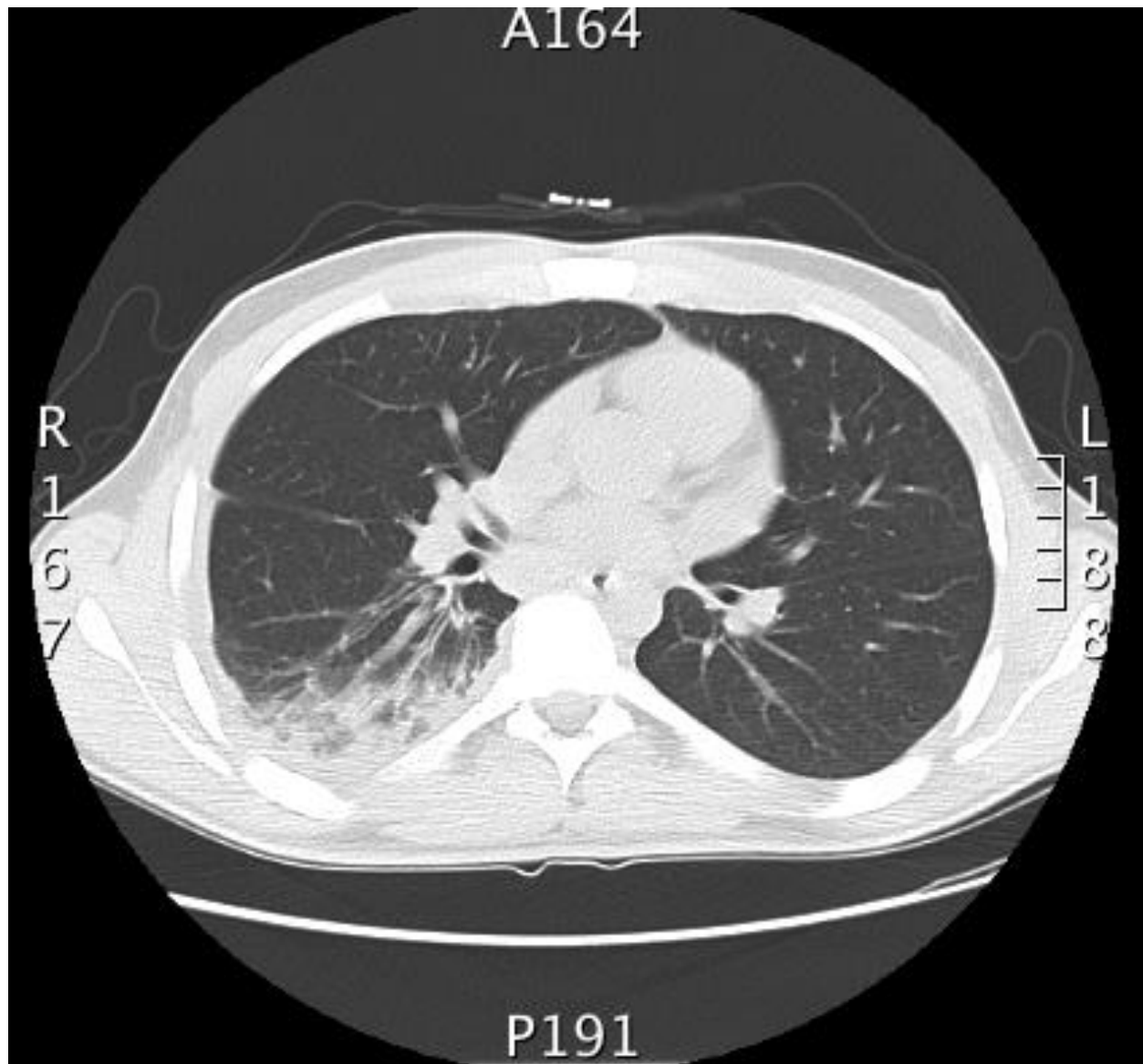
- HIV, CMV – negative; EBV IgG – positive
- C. pneumoniae, M. pneumoniae, L. pneumophila - negative

Microbiology

- Urine culture – negative
- Blood cultures – ***Fusobacterium necroforum***
 - Anaerobic infection also known as Lemierre syndrome or necrobacillosis
 - Amoxicillin/clavulanate was continued based on antibiogram

Chest CT 19.11.13





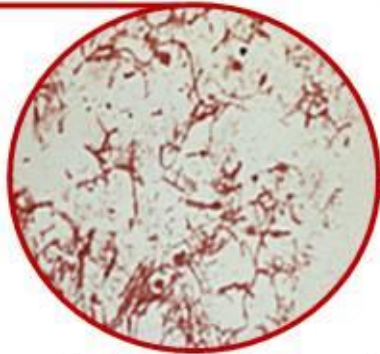
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- Patient is discharged from hospital in good condition
- CRV 28mg/l, PCT 0,04ng/ml
- Oral clindamycin is continued for 5 days

Lemierre syndrome

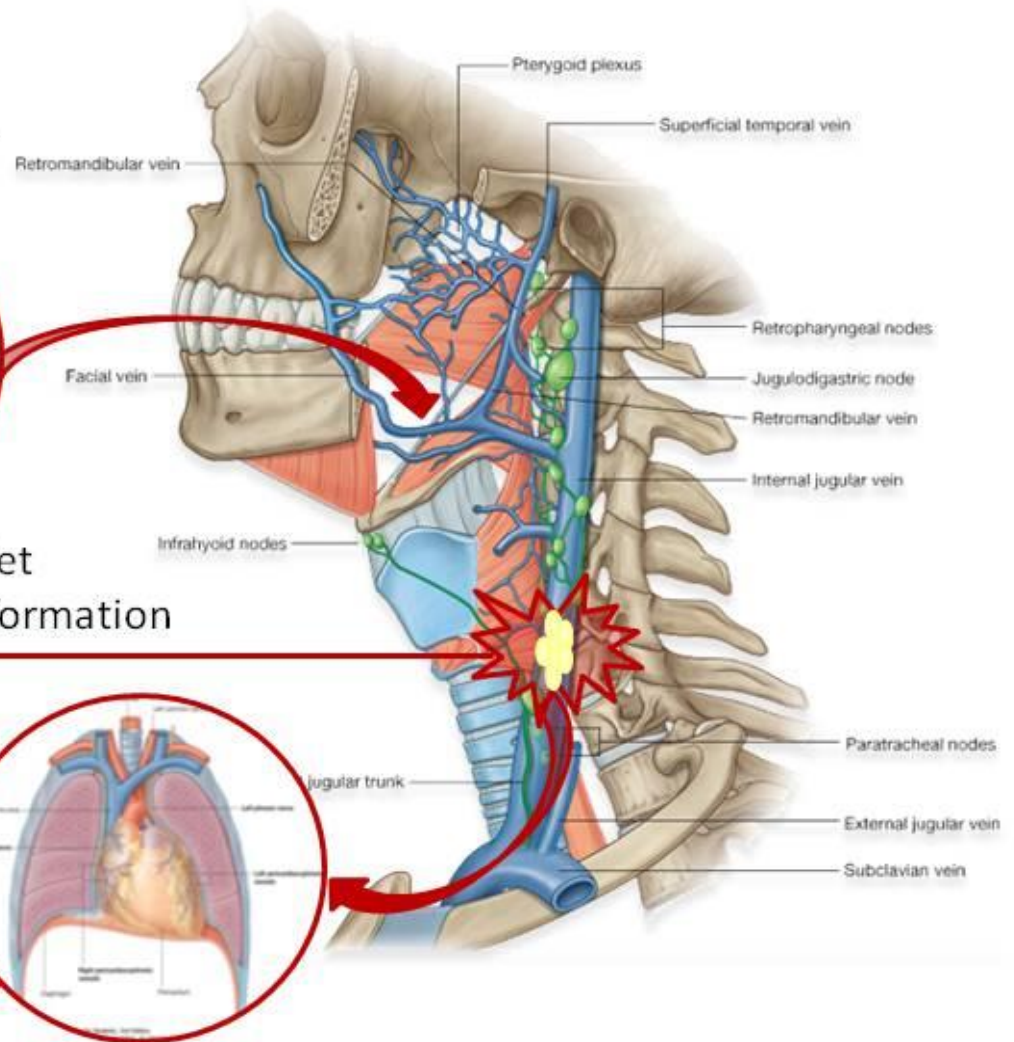
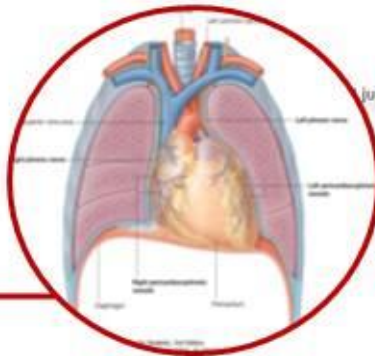
- A rare condition characterized by recent oropharyngeal infection, followed by **septic thrombophlebitis** of the internal jugular vein and **metastatic abscesses**

Passage from tonsillar into the IJV



Bacterial endotoxin induces platelet aggregation and septic thrombus formation

Septic emboli lodge in lungs, liver, endocardium, and/or joints



Learning points

- Potentially life-threatening disease in young previously healthy persons
- Maybe not so uncommon anymore?

Thank you!



Literature

- Brazier, J. S. 2006. Human Infections with *Fusobacterium necrophorum*. *Anaerobe*, 12, 165–172.
- Riordan, T. 2007. Human Infection with *Fusobacterium necrophorum* (Necrobacillosis), with a Focus on Lemierre's Syndrome. *Clinical Microbiology Reviews*, 622-659.
- Srivali, N. et al. 2014. Lemierre syndrome: An Often Missed Life-Threatening Infection. *Indian Journal of Critical Care Medicine*, 18, 170-172.
- Gupta, N., Kralovic, S. M., McGraw, D. 2014. Lemierre Syndrome: Not So Forgotten! *American Journal of Critical Care*, 23, 176-179.