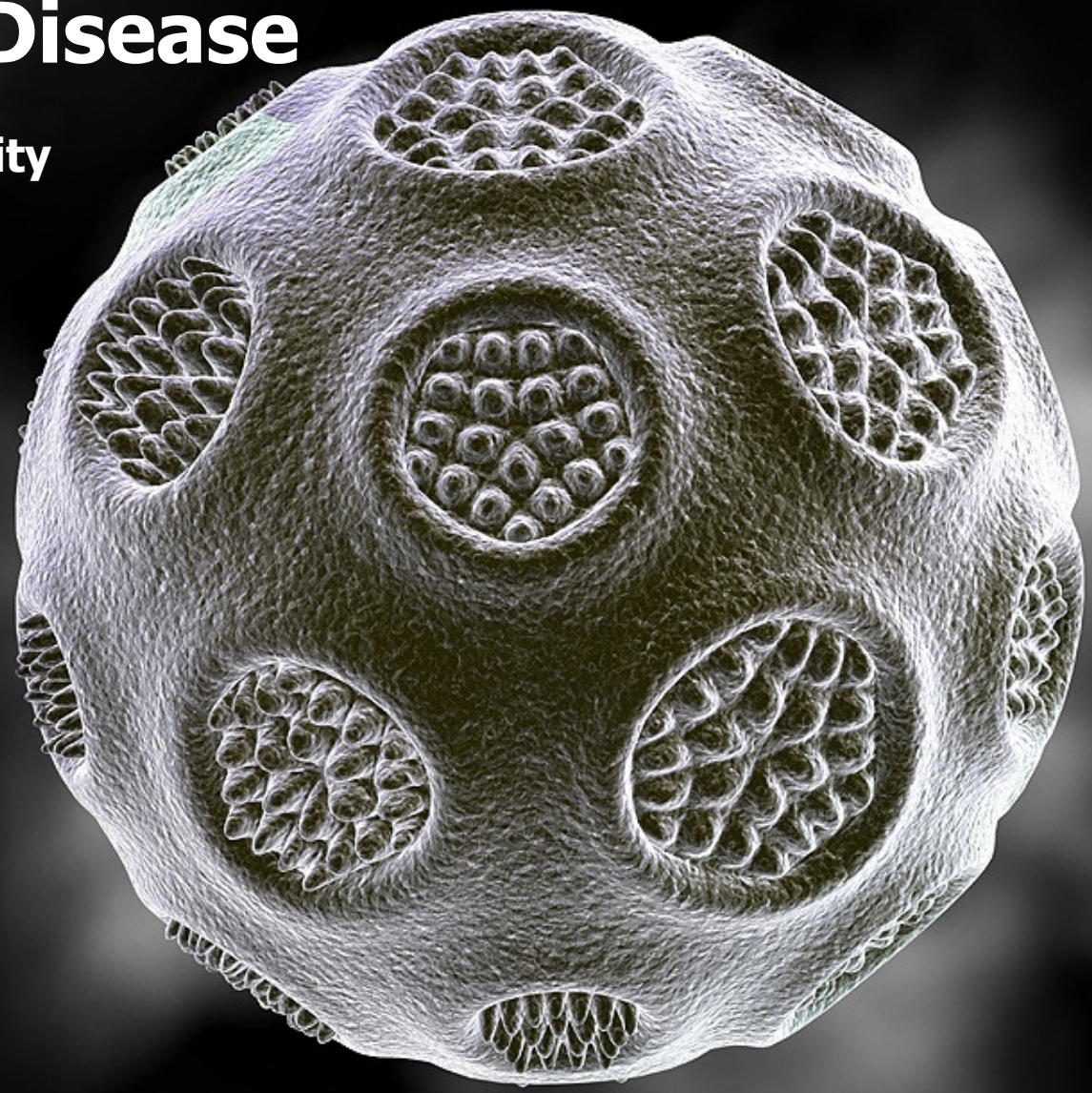
The Forgotten Disease

Dr. Amera Elzubeir- University Hospital Birmingham.



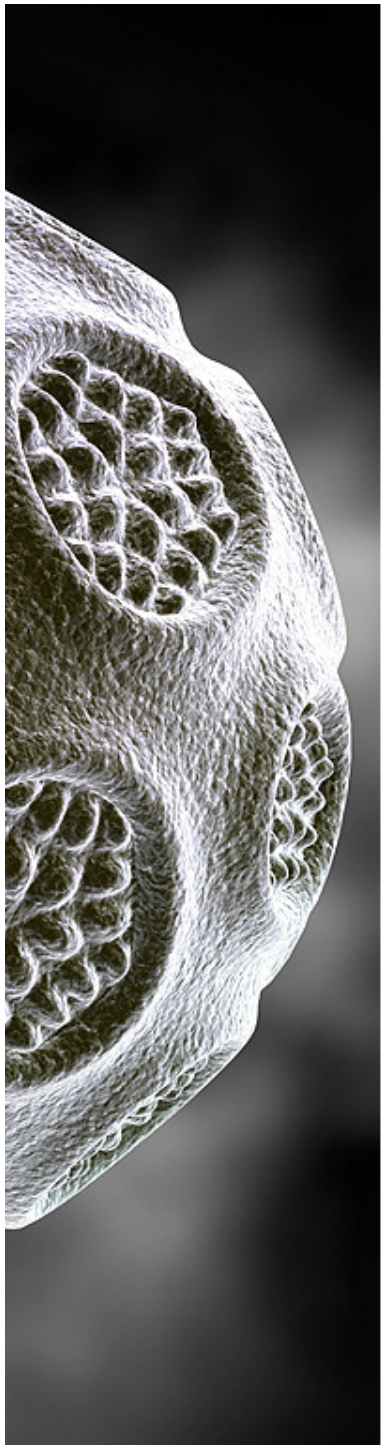
The case-1900hrs

- Master AD
- 18 year old male
- 1st week at university

- PC: Generally unwell

- HPC: Tonsillitis 5/7 ago
  D&V
  Fever & Rigors
  Pleuritic chest pain, cough & sputum

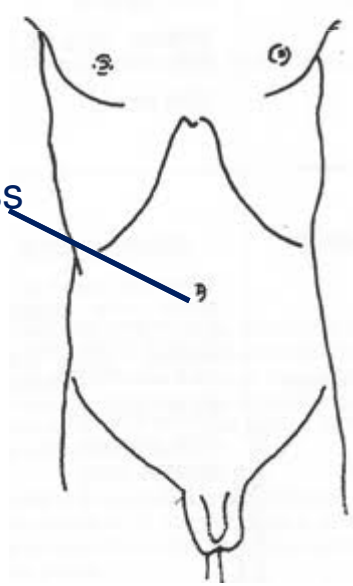
- PMHx/DHx- Nil

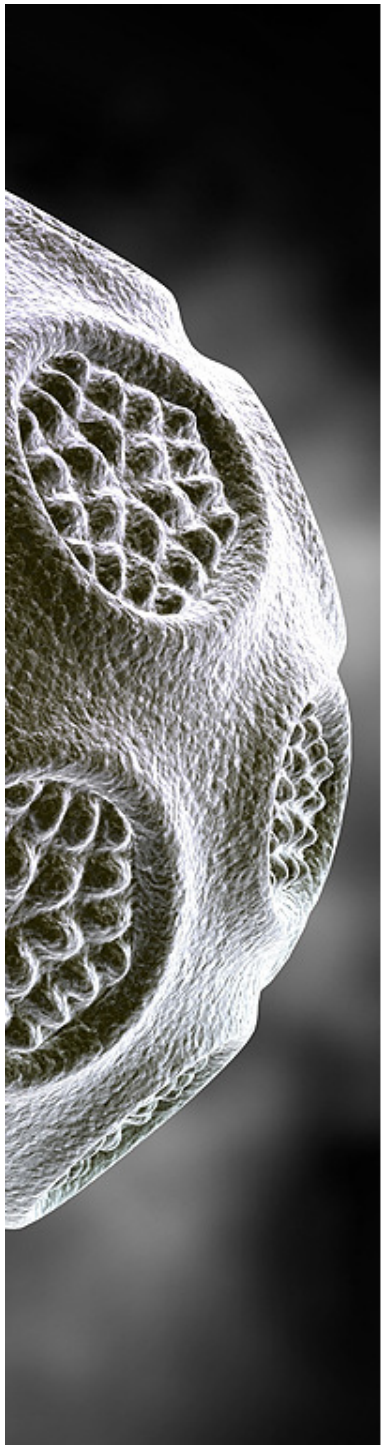


On Examination

- A- Patent
- B- Peripherally cyanosed
  RR- 30
  Sats-75% RA
  Auscultation- reduced A/E & crepitations
  Rt Base
- C- HR-110
  BP- 95/42
  CRT <2sec, warm
  HS-I-II-O
  Good urine output
- D-GCS 15
- E-Calves SNT, No Rash, 40.2°

Soft
++central tenderness
BS-Present
No masses





Investigations

- ABG on 35%- pH-7.47

  p02-11.66

  pCO2- 3.65

  HCO3- 22.5

  Lactate-2.01

  ECG- Sinus tachycardia

PATIENT SAMPLE REPORT 24 MAY 2005 20:01

SYSTEM 865-08622		Analysis Date 24 MAY 2005	
		Analysis Time 20:01	
Sequence no 1732		Draw Date	
Accession no		Draw Time	
Source		Operator ID	
Patient ID		Sex	
Birthdate		Physician ID	
Age		Location	

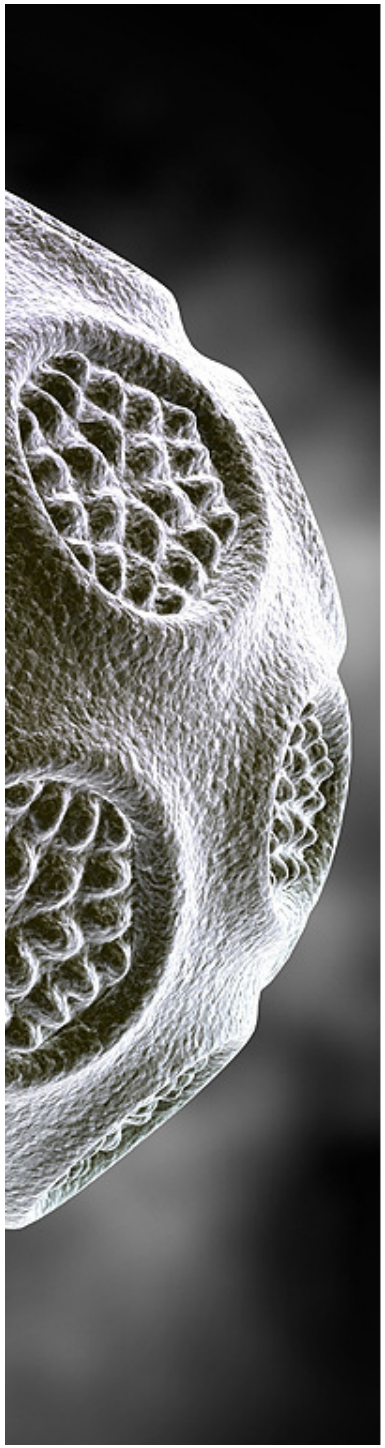
SYRINGE SAMPLE

ACID/BASE 37°C		Units	Reference Range
pH	7.368		(7.350 - 7.450)
pCO2	3.75↓	kPa	(4.67 - 6.00)
pO2	11.26	kPa	(10.00 - 13.33)
HCO3-std	18.2	mmol/L	
BE(B)	-7.8	mmol/L	

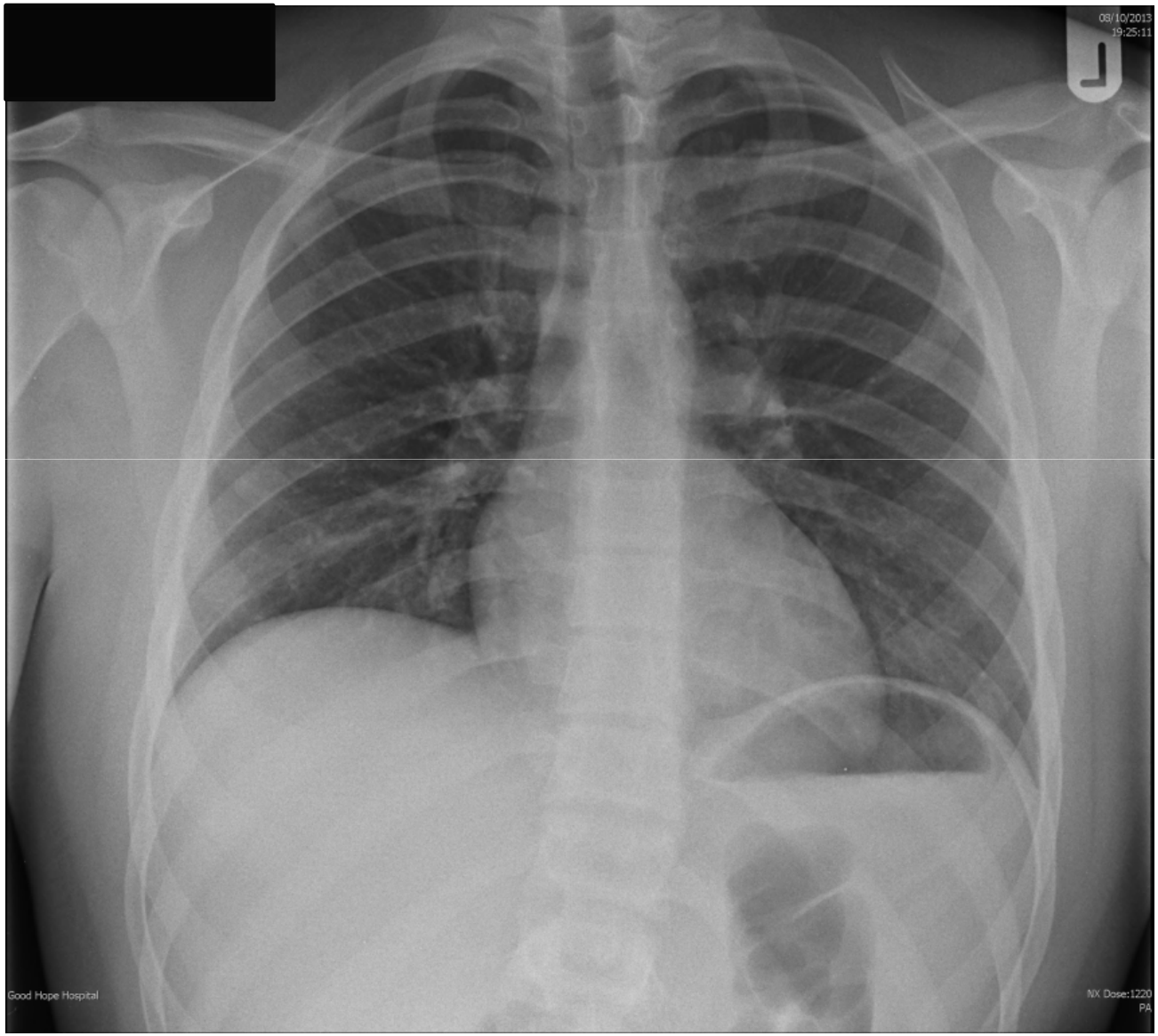
OXYGEN STATUS 37°C			
pO2	11.26	kPa	(10.00 - 13.33)
O2SAT	96.3	%	

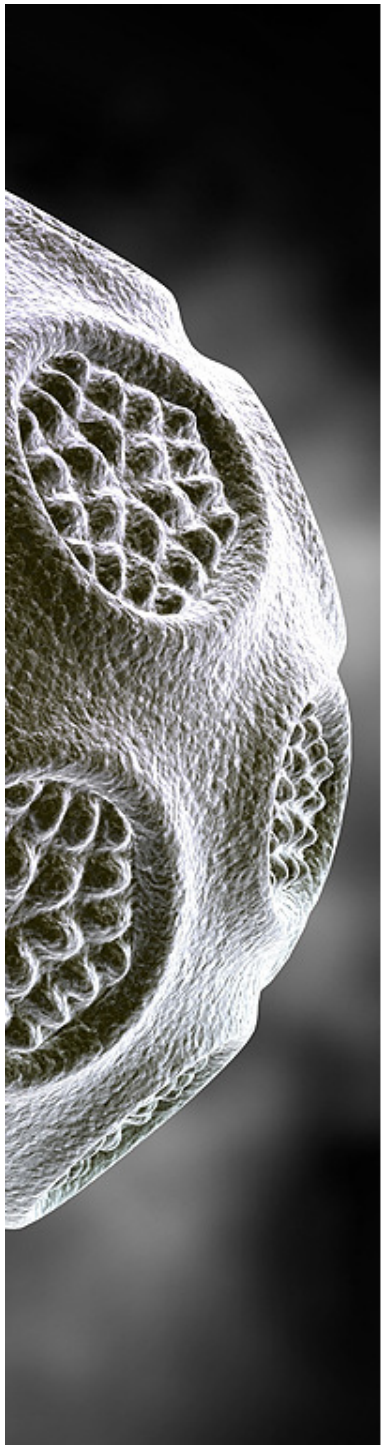
ELECTROLYTES			
Na+	143.7	mmol/L	(135.0 - 148.0)
K+	5.37↑	mmol/L	(3.50 - 5.30)
Cl-	119↑	mmol/L	(98 - 106)

↑ or ↓ = exceeds reference range



Investigations





Blood Results-2000hr

- Na 129
- K 4.1
- Urea **14.7**
- Creatinine **133**
- GFR **64**
- Albumin *28*
- ALT 38
- ALP *184*
- Bilirubin 13
- Corrected Ca 2.3

- CRP **302**
- WCC **21.81**
- Neutrophils **18.70**
- Monocytes *1.67*
- Lymphocyte *1.25*

Current problems

- **1. Probable CAP**
- **2. Type 1 Respiratory Failure**
- **3. AKI**

Investigations pending-2200hrs

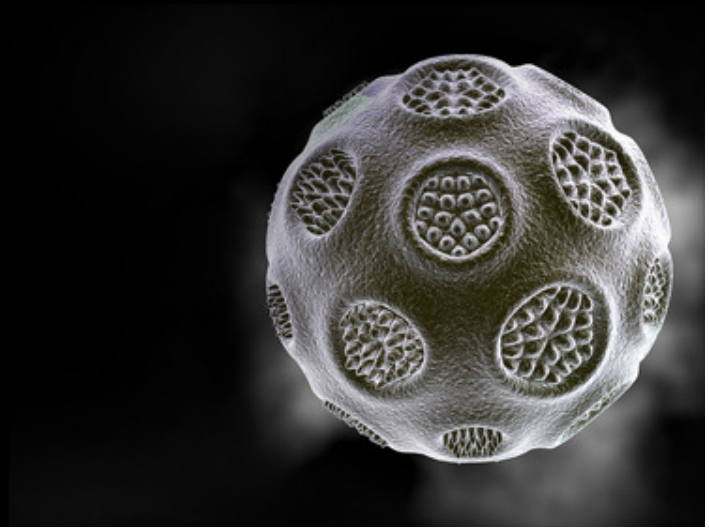
- HIV
- Atypical serology
- Urinary leigonella and pneumococcal
- Viral studies
- Throat swab
- Blood cultures
- Sputum MC&S
- Amylase

Treatment

- IV benzylpenicillin and clarithromycin
- IV Fluids
- Analgesia
- Antipyretics

43hrs post admission

- Patient improving
- Preliminary blood cultures- gram variable cocci and gram positive rods
- Tx- IV Tazocin and oral clarithromycin



67 hrs post admission

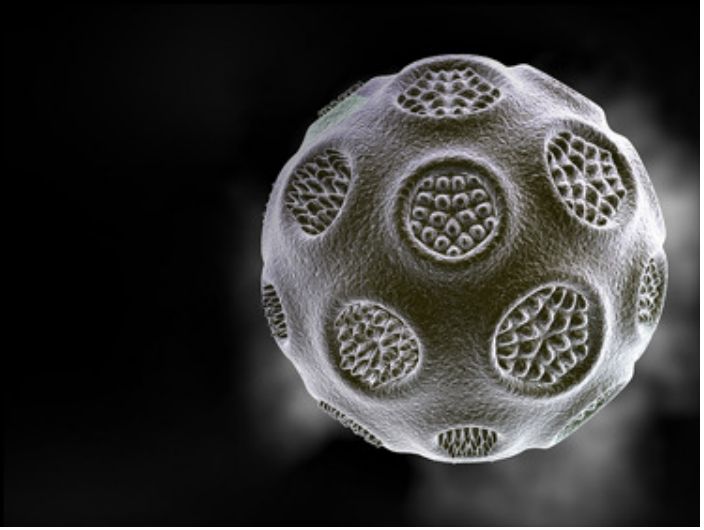
- Patient improved further
- Further micro input-Anaerobes ? Pharyngeal source
- Tx- IV tazocin & oral clarithromycin under micro advice

72hrs post admission

- Reg on call ASTP RE: spiking temperature
- Appearance of maculopapular rash
- ? EBV

Investigations day 6

- EBV POSITIVE
- HIV NEGATIVE

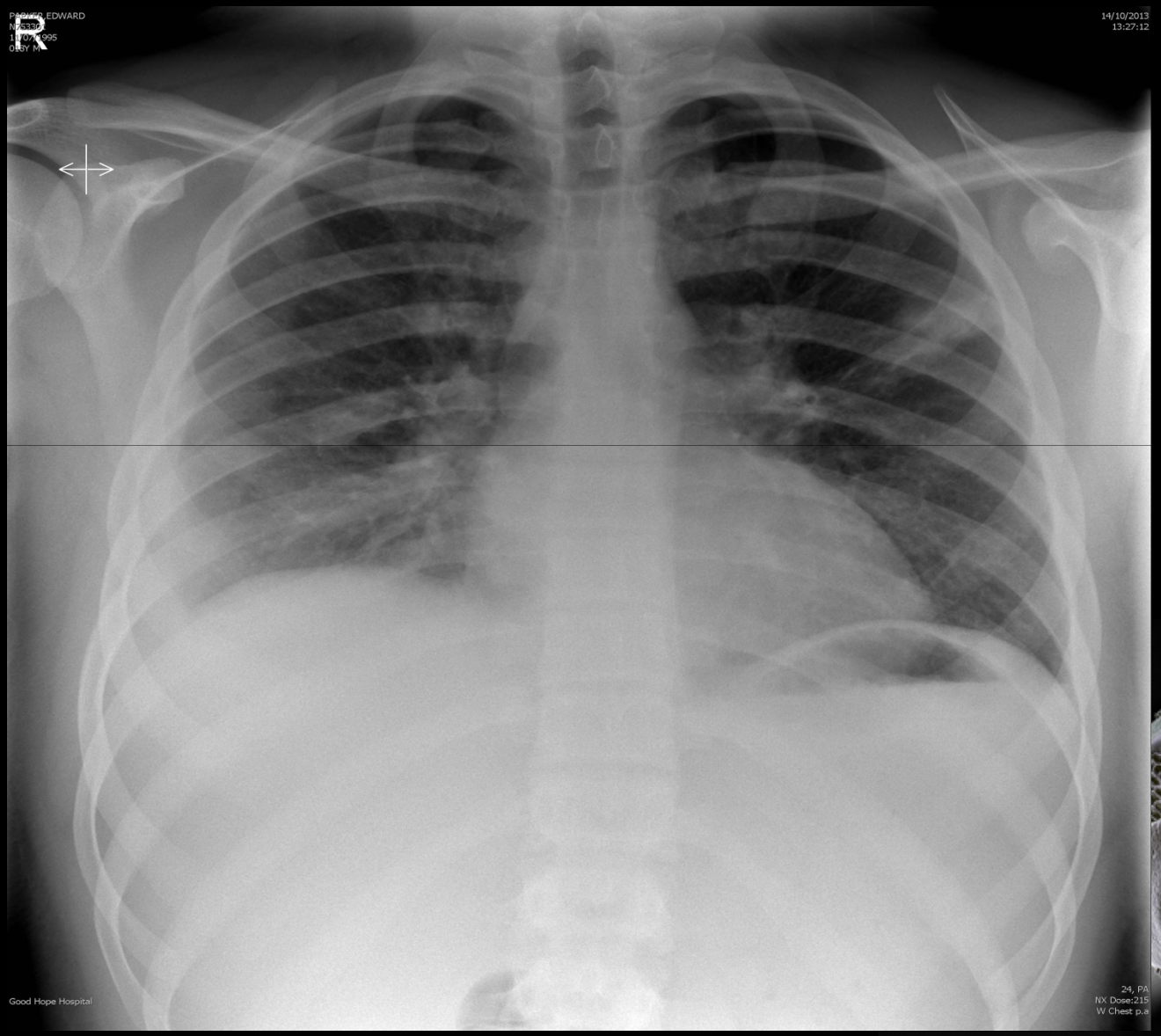


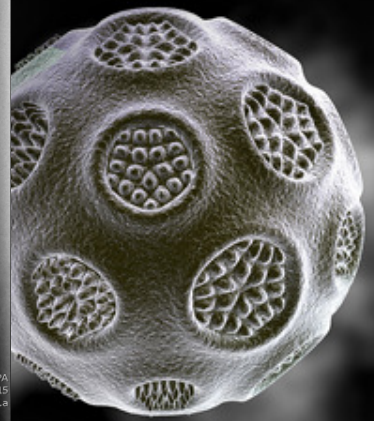
Day 6 ward round

- Patient much improved
- Apyrexial for 48hrs
- No rash
- Pain free
- Throat still ++ hyperaemic

PLAN- Repeat CXR

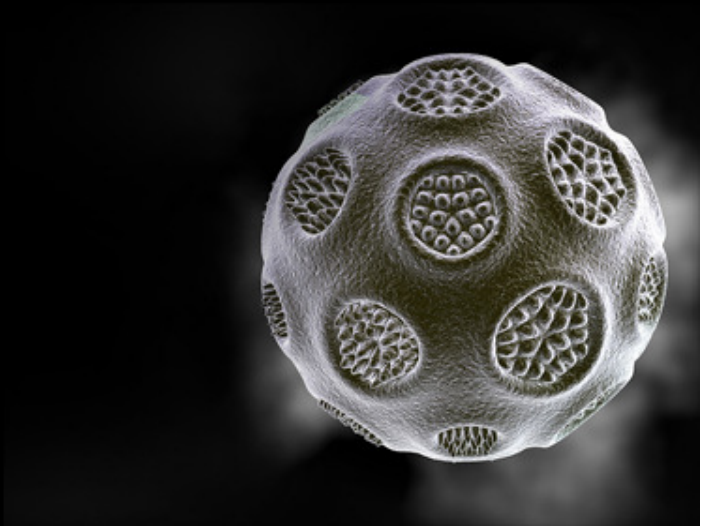
Repeat CXR

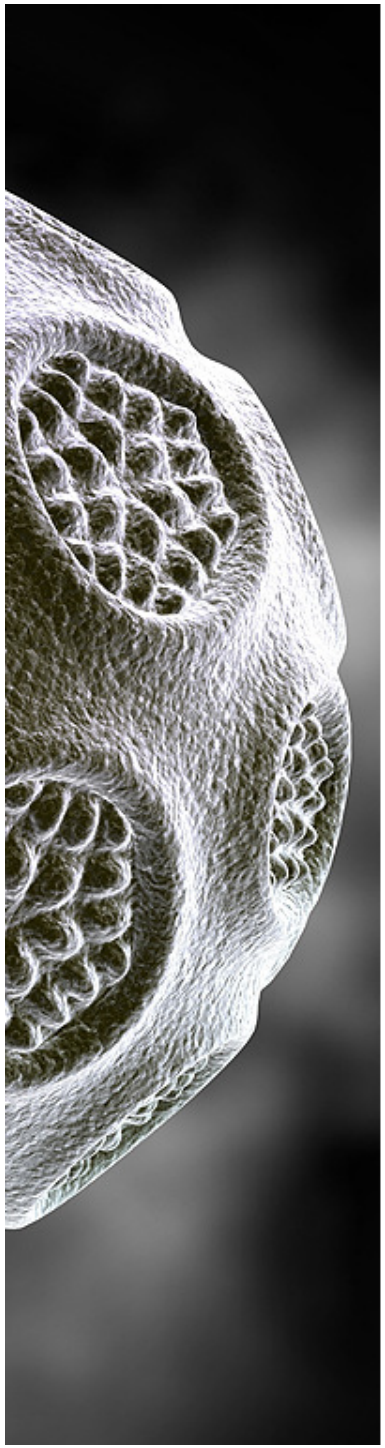

14/10/2013
13:27:12
Good Hope Hospital
24, PA
NX Dose:215
W Chest p.a



Another phone call from Micro

- Blood cultures grown:
- 1. FUSOBACTERIUM NECHROPHORUM

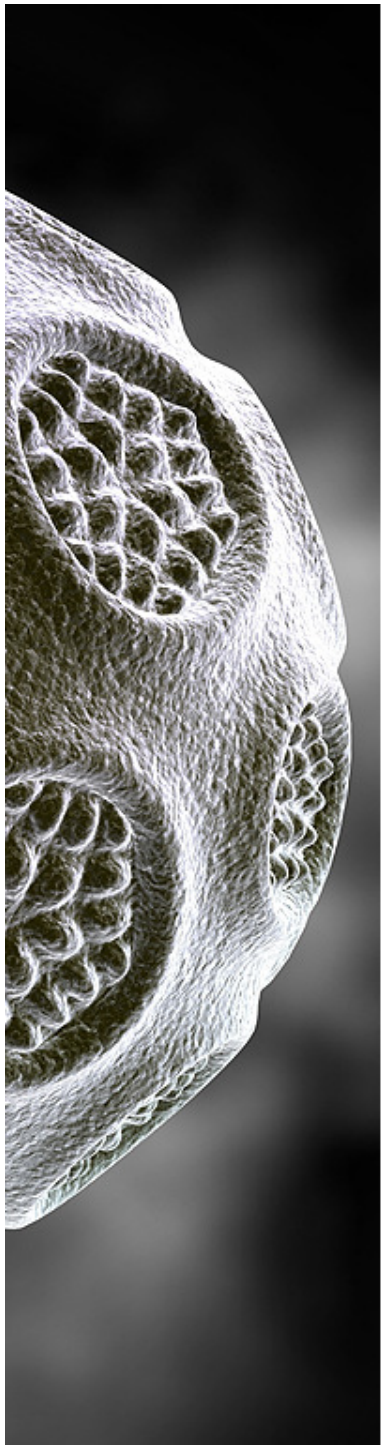




Fusobacterium Necrophrum

- Anaerobic gram negative bacilli
- First described as a pathogen in animals

- First described in 1900 by Courmont & Cade- post anginal septicemia
- Andre Lemierre, 1936- published 20 case reports of a syndrome.
- “syndrome is so characteristic that a mistake is almost impossible”.

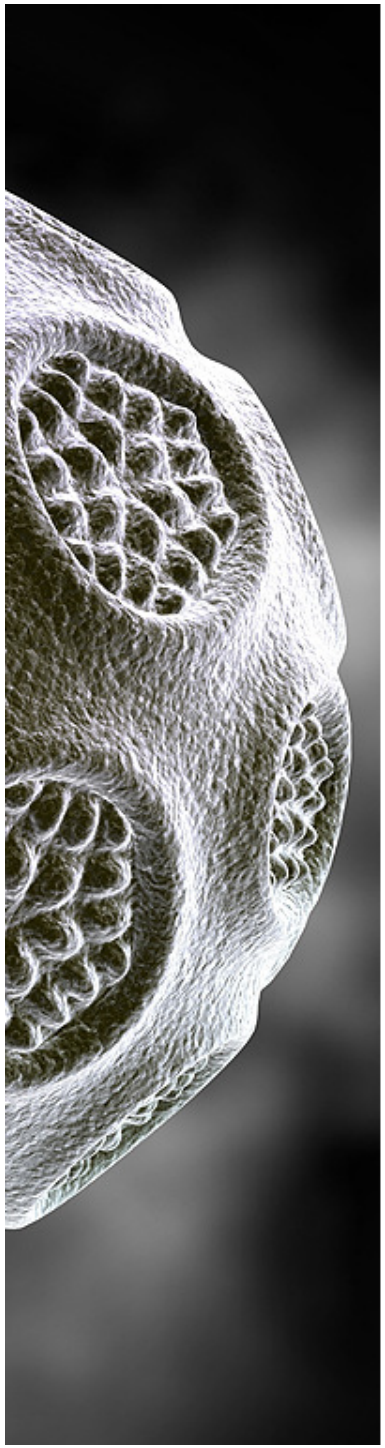


Lemierres Syndrome

- Aka Post anginal septicemia or necrobacillosis.

- Rare
- Mortality rate- 8 to 30%
- M>F

- A syndrome characterised by:
  - **Oropharyngeal infection**
  - **Anaerobic septicemia**
  - **Clinical/radiological evidence of internal jugular vein thrombosis**

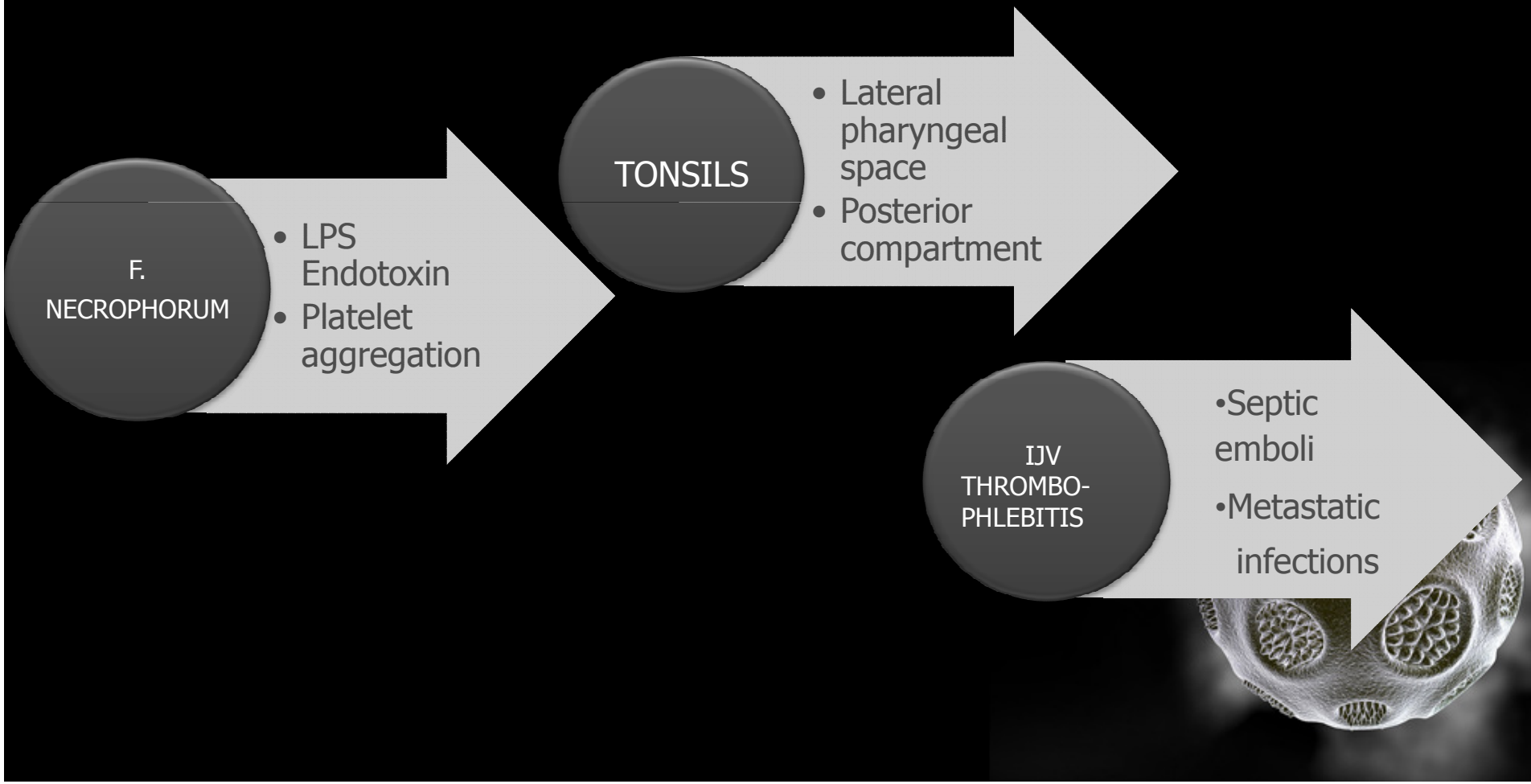


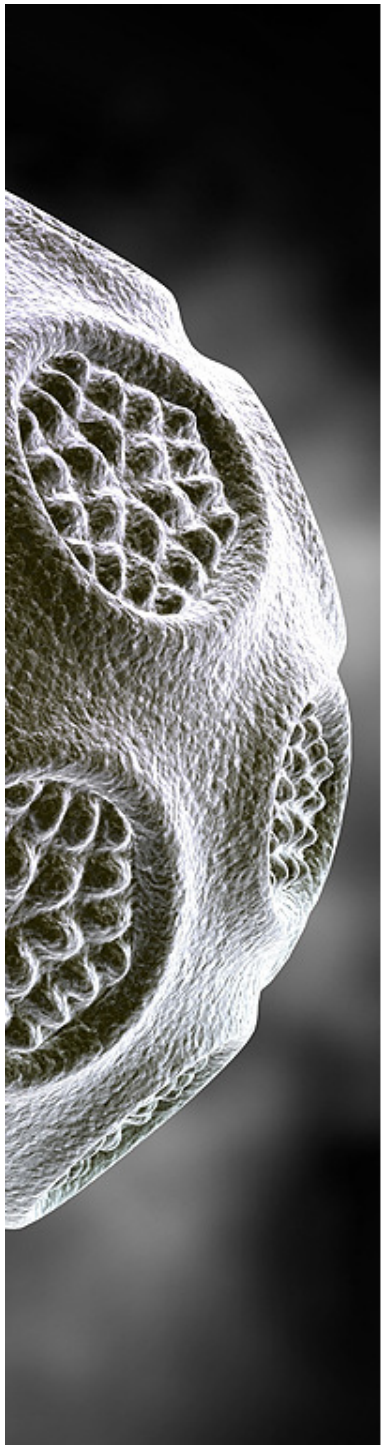
Fusobacterium Necrophurm

- Normal inhabitant of-oral cavity, genital tract, GI tract.
- Most virulent
- Common in pre-antibiotic era & usually fatal.
- Substantial decrease-1940.
- Resurgence since late 1990.

Aetiology

•Unusual ability to affect previously healthy young adults humans





Pathogenesis

- Reason why F. Necrophum becomes invasive is unknown
- ? EBV as risk factor
- ? Enhancement of toxins

Clinical presentation

Tonsillitis

Hyperaemic pharynx

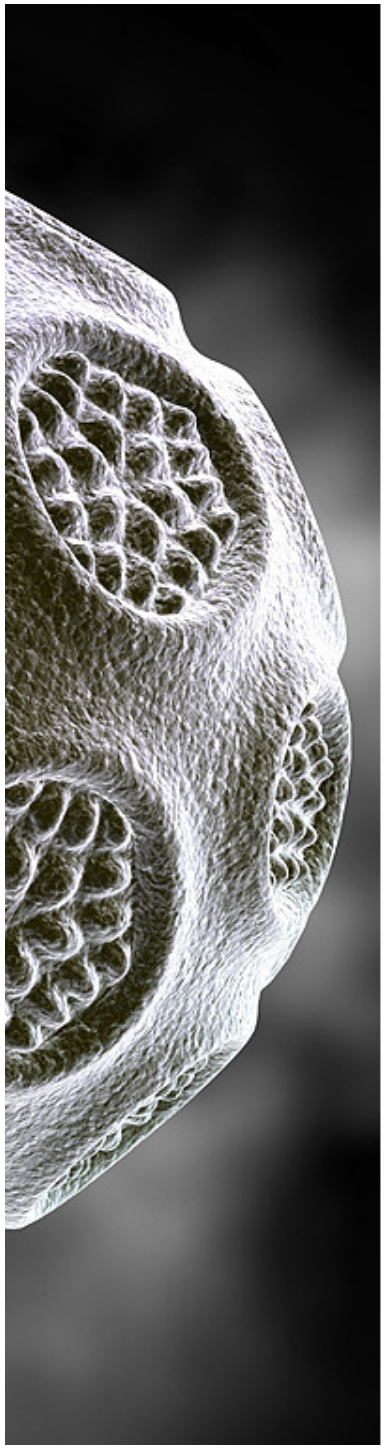
Nil Oropharyngeal

IJV/peritonsilar vein thrombophlebitis

Local signs
- Pain
- Swelling
- Induration
- Trismus

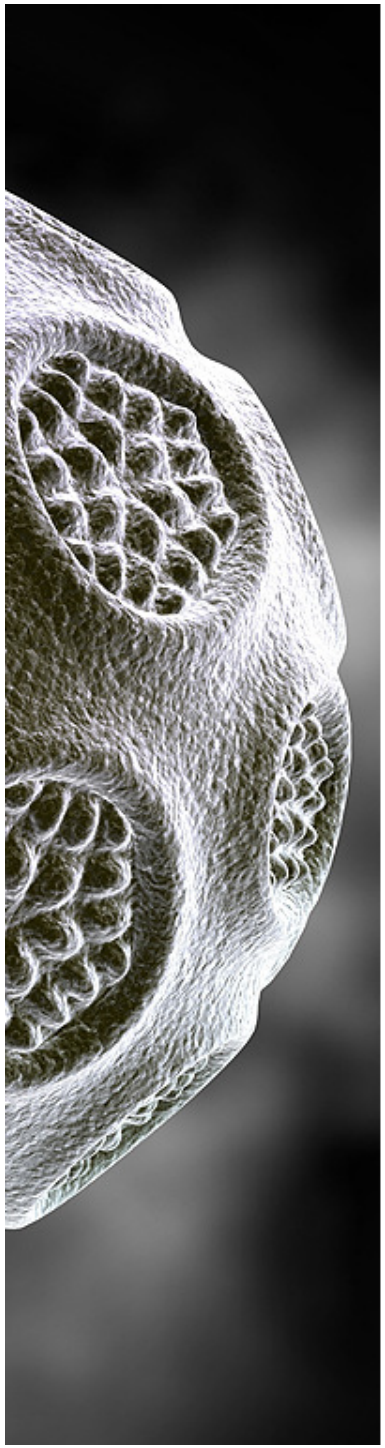
Persistent fever

Septic/metastatic emboli
-Lungs
-Bone
-Liver/spleen
-Brain
-Skin



Diagnosis

- Causative organism isolated.
- Suspicion of IJV thrombophlebitis must be objectively confirmed.
  - **CT Neck + contrast**
  - **U/S**

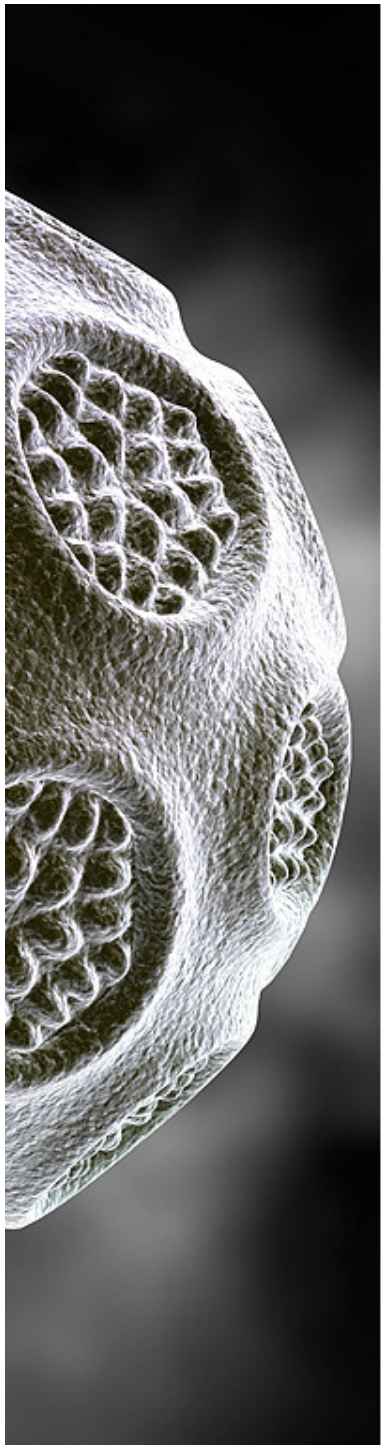


Treatment

- IV antibiotics as mainstay
- Prolonged-due to endovascular nature
- Sensitive to: metronidazole, penicillin, clindamycin & chloramphenicol
- Some strains produce Beta-lactamase.

- Role of anticoagulation is controversial.

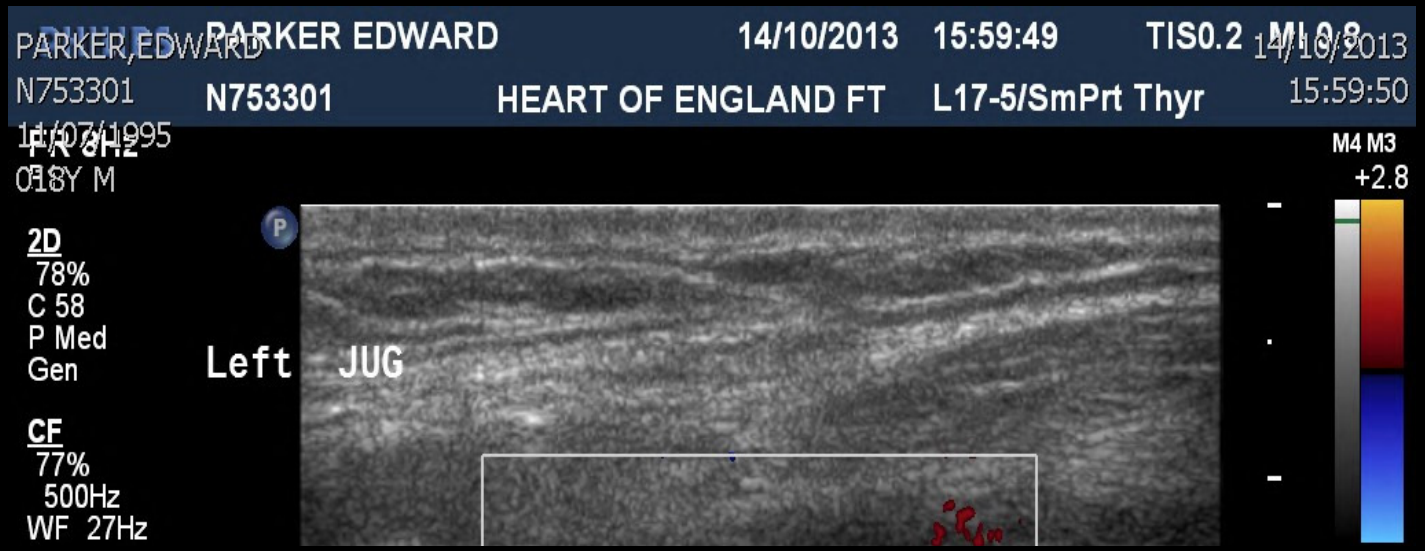
- Surgical or excision of IJV-rarely needed.



Our patient-Lemierres syndrome

- A syndrome characterised by:
  - **Oropharyngeal infection**
  - **Anaerobic septicemia**
  - **Clinical/radiological evidence of internal jugular vein thrombosis**

Ultrasound Neck



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