

CASE OF STAPH. AUREUS PNEUMONIA



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MD

PATIENT'S HISTORY



Ambalal Labana a male aged 40 yrs came with c/o

- High grade fever with rigors –7 days
- cough with white expectoration—7 days
- Breathlessness on mild exertion---3 days
- Bil chest pain on deep inspiration– 3 days

No other complains of



- No other complains of
- Weight loss
- Hemoptysis
- Odema feet
- Puffiness of face
- Decreased urine output



- **No past history of major illness**
- **No family history of major illness**
- **Patient is non smoker and also has no habit of tobacco chewing or alcohol**
- **No other addiction**

ON EXAMINATION



- Patient lean & thin
- Mildly breathless and coughing
- No oedema feet
- No anaemia, lymphadenopathy.
- Skin of normal colour & texture
- No cyanosis ,clubbing
- No other positive finding



- **F-102 F**
- **P-118\min regular**
- **BP-110\70**
- **RR-20\min Regular**
- **Wt-62 kg.**



- **CVS-NAD except tachycardia**

P/A NAD

CNS-NAD-conscious welloriented plantars flexors.



- **Chest bil-Symmetrical**

normal expansion on inspiration

On auscultation –bil breath sounds

decreased in bil lower zones

Rhonchi on both lung fields

Tachypnoea present

INVESTIGATIONS



- **CBC**

HB-12.6 gm%

Platelet 2,63,000

RBC-4.38 million/cmm ESR 97 mm /1st hr

PCV-37%

M P not detected

TC-27,200/cmm

Polymorphs 82 %

Lymphocytes 9 %

Eosinophils 2 %

Monocytes 7 %

Basophils --

INVESTIGATION(continue...)



Polymorphs-82%

Lymphocyte-9%

Eosinophil-2%

Monocyte-7%

Basophil

- ❖ **MP not detected**
- ❖ **PC-2,63,000/cmm**
- ❖ **ESR-**



- **S.Creatinine-1.04 mg/dl**
- **S.G.O.T-50.64 u/l**
- **S.G.P.T-71.56 u/l**
- **CRP -440.65 mg/l**
- **HIV-Negative**
- **HBS Ag-Negative**
- **URINE(R&M)-Normal**



- **S.Bilirubin 0.64-0.41-0.23**
- **SGPT-84 IU/L**
- **S.Protien**

T-5.6 gm/dl

Albumin-2.7

Globulin-2.9

A/G-0.9



- ❖ Xray chest- Bil pleural effusion –underlying consolidation.
- ❖ USG abdomen-Bil pleural effusion mild –slight increase in echo pattern of kidneys.
- ❖ ECHO- EF 62%



- Patient put on higher antibiotics
 - cefaperazone+sulbactum
 - levofloxacin
 - deriphylline
 - multi vitamins
 - oxygen
 - I/v fluids

Next day....



- **CT Thorax-Bil . Moderate pleural effusion with fissural fluid logging on left side.**
 - cardiomegaly with mild hepatomegaly**
 - multiple pleural based soft tissue nodular lesions on both lungs with cavitory changes within and surrounding ground glass haziness.**

Day 3



- ❖ Pleural fluid tapping done on Rt side-amber cloured fluid –sent for routine microscopy culture.
- ❖ Sputum also sent for culture
- ❖ Same treatment continued

Day 4



- Xray repeated-same findings
- Same treatment continued

Day 5



- Pleural fluid –exudative
fluid-70 % polymorphs
30% lymphocytes
Proteins-4.6 gm%
but culture-Negative

Same treatment continued

DAY 6



- Sputum culture received
 - Staph.aureus isolated-coagulase positive profuse colony.
- Sensitive to
 - Amoxicillin+clavulinic -Gentamycin ,amikacin
 - Piperacillin+tazobactam -Netilmycin
 - Ampicillin+sulbactam -Tobramycin
 - Aztreonam , Cephalosporin sensitive(3rd generation)

DAY 6



- Patient put on combination of
 - piperacillin+tazobactam
 - Amikacin+supportive Medicine



- **Slow recovery seen**
- **Serial X rays show improvement**
- **Serial CBC counts show improvement**

- **Requirement of oxygen decreased every day.**
- **On 13th day patient is discharged with significant improvement of xray and normalising of counts.**

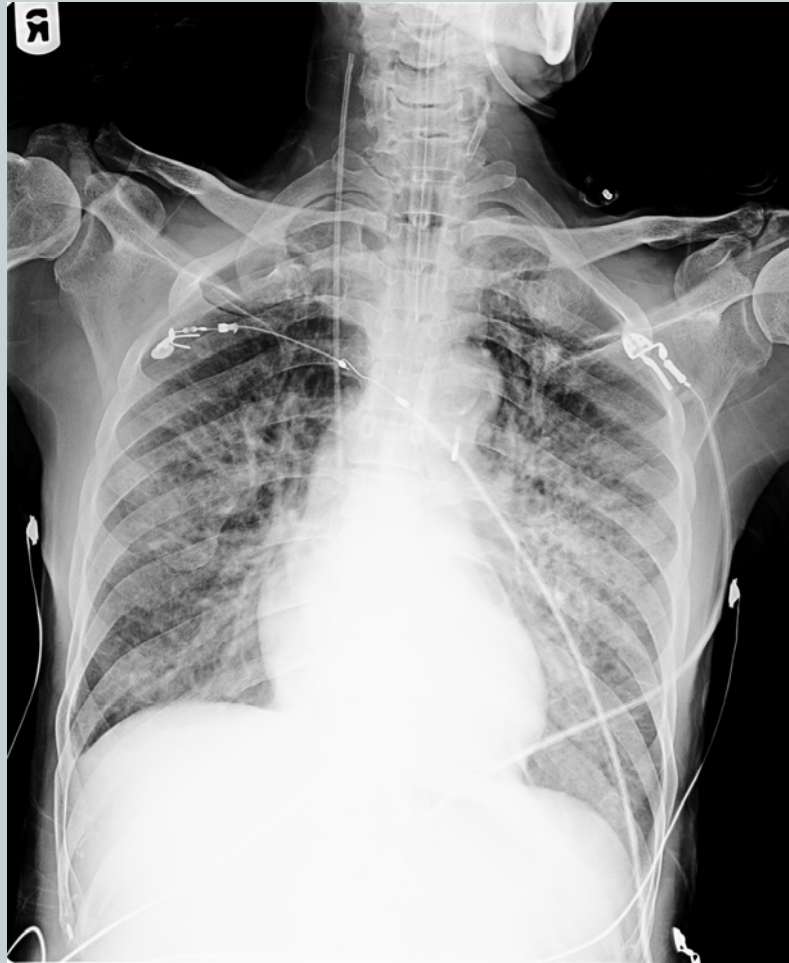
24th july-'08



27th july-'08



1st aug-'08



2nd aug-'08



19th aug-'08



What is staphylococcus?



- Groups of bacteria known as staphylococcus
- Can cause multitude of disease
 - infection of various tissues
 - illness by direct infection
 - indirectly by producing toxins
 - food poisoning
 - toxic shock syndrome
 - illness range from-mild to severe & potentially fatal.



- Appearance of Staph-bunch of grapes or round berries.
- 30 different types of staphylococci present.
- Most infections caused by Staph.Aureus.
- Mostly found on skin-damage to skin-allow bacteria to overcome natural defence of body.

Who is at risk?



- Breast feeding women
- Pts of –diabetes
 - cancer
 - vascular disease
 - chronic lung disease
 - skin injury or disease
 - I/v catheters
 - surgical incisions
 - weakened immune system

What type of disease are caused by staph.?



- Staph skin infection-impetigo
 - cellulitis
 - scalded skin syndrome
 - mastitis(breast fed)
women
- Staph. Enters into blood stream-Pneumonia
 - abscess in lungs
 - endocarditis
 - osteomyelitis
- Staph.sepsis-burns-severe sepsis-circulatory collapse-death.



- **Staph food poisoning-
-nausea
-vomiting
-diarrhoea
-dehydration**
- **Toxic shock syndrome(tampons)
-high fever
-vomiting
-diarrhoea
-muscle aches
-hypotension
-rash
-shock-death**

How Staph. is diagnosed?



- **Skin infection-diagnosed by their appearance**
- **More serious**
 - pneumonia
 - endocarditis-culture(sputum/body fluid/blood)
 - shock

How treated?



- Treated according to culture
- Routine antibiotic sensitive

What is antibiotic resistant staph.aureus?



- **Metnicillin resistant staph.aureus-MRSA**
 - Resistant to -penicillin
 - amoxicillin
 - oxacillin
- **Lately even resistance to vancomycin observed.**
- **Difficult to treat if progress to life threatening blood or bone infections.**



*THANK
YOU*