

Topic 11

Case Study of Dyspnea



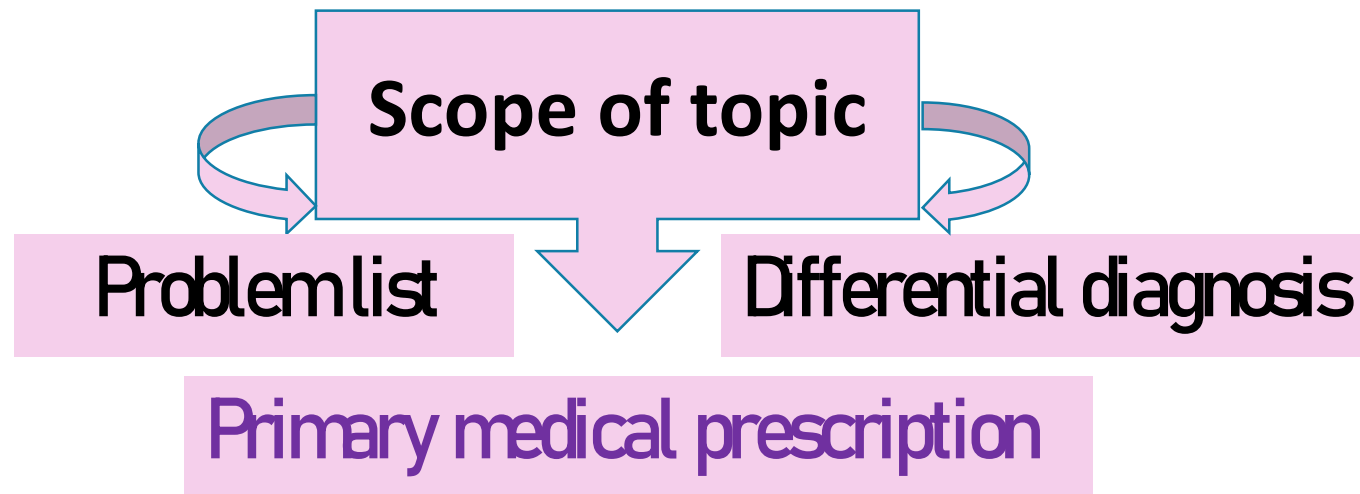
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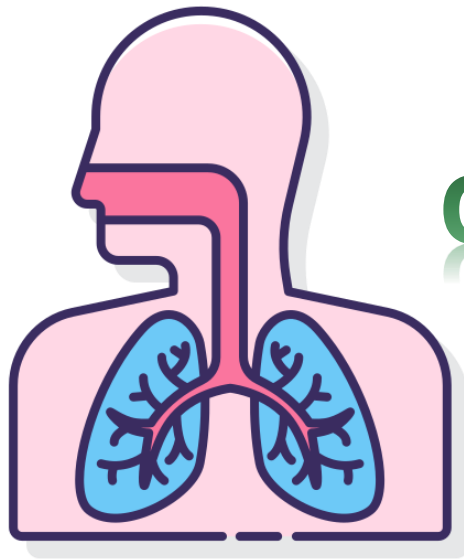
Lesson objectives

By the end of the topic students should be able to:-

- assess health problems according to patient with dyspnea,
- determine differential diagnosis of patient with dyspnea,
- provide primary medical prescriptions and care for a patient with dyspnea



Case study of dyspnea



or



Lungs or heart?

Chief complaints of the patient



A 65-year-old male comes to the hospital complaining of chest pain and shortness of breath which has worsened over the past 3 days.



- ✓ History taking should attention to
- ✓ : onset (sudden or chronic and progressive,
- ✓ : timing (persistent or intermittent)

➤ PE: examine the eye lids, pharynx, chest and heart.



Case study

- A 65-year-old male comes to the hospital complaining of **chest pain and shortness of breath** which has worsened over the past 3 days. The chest pain is in the right lateral chest, and he describes it as dull and non-radiating. The pain is worse with inspiration. The **dyspnea is worse with exertion and associated with a mildly productive cough.**
- Also, he complains **3 days of fever.**
- There is no associated post-nasal drip, sore throat, ear pain, rash, or heartburn symptoms.
- He cannot perform daily activity life well and cannot eat and sleep as usual.
- He denies orthopnea or edema.

Physical examination 1

Vital Signs

T = 39.0 °C, P = 110 beat/min (bpm), fullness, regular
tachycardia rhythm,

R = 28 bpm, BP = 100/60 mmHg.

= 94% of room air oxygen saturation

BW= 85 kg, Ht.=170 cm.

General

The patient is awake and alert, looking acutely ill and dyspnea

• Head and Face

Symmetry, Normal shape and size, normal movement

• Neck No jugular venous distension



Physical examination 2

Eye – no eyelids edema

Nose Symmetrical movement, No septal deviation

Nasal turbinate congestion 1+, no discharge

Both maxillary sinus no tenderness, nor dullness

Mouth dry mucous membrane,

Buccal mucosa – pink, no inflammation nor erosions,

No Koplik's spot

Tongue – Normal papillae, No sign of inflammation

Pharynx – no injection,

Tonsil – no injection

Skin – no edema, clubbing or calf tenderness. No jaundice, ecchymosis or petechiae.





Physical examination 3

Chest

Symmetrical chest walls,
Normal size and shape

Normal chest movement

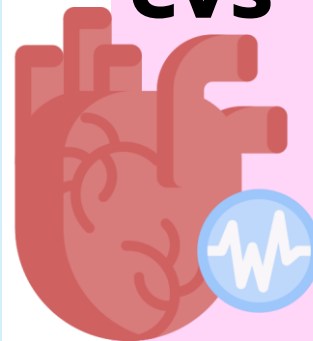
Expansion full, R = L

Tactile fremitus, R = l

Percussion resonant left,
dullness at right base

Breathe sound – **decreased at
the right base**

– **fine crepitation at right
base**



CVS No bulging

Apical beat at 5th Lt.ICS, MCL

No precordial heave or thrill

Heart sounds (HS) – normal,
No murmur, No bruit

Peripheral pulses equal, R = L

Problem lists

1. Chest pain and shortness of breath 3 days,
 2. Dyspnea associated with productive cough,
 3. **Fever** 3 days, **T = 39.0 °C**,
 4. Cannot perform daily activity life well and cannot eat and sleep as usual,
-
6. **P = 110 beat/min (bpm), fullness, regular tachycardia rhythm,**
R = 28 bpm, 94% of room air oxygen saturation
 7. **Lungs: Percussion: resonant left, dullness at right base**
Auscultation: Breathe sound – decreased at the right base
– fine crepitation at right base

Differential diagnosis

1. Acute Pneumonia
2. Pulmonary Edema
3. Coronary Artery Disease

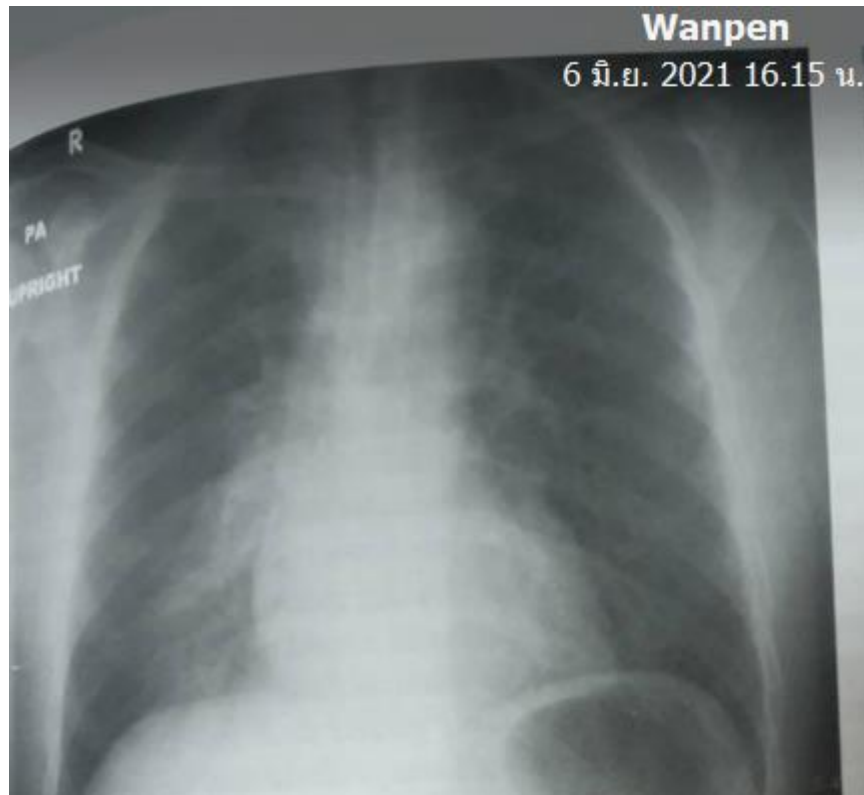
Plan for diagnosis

(Physician make order)

- Chest X-ray
- Blood test: CBC
- EKG

Laboratory results

- Chest X-ray ; **infiltration at right lower lobe**



The right heart border and diaphragm still seen,
May be consolidation is in the right lower lobe.

➤ Blood test: CBC

- Hct 44% (Normal 42-52%)

- **WBC 11,500 cell/cu.mm.**

(Normal 5,000-10,000 cell/cu.mm)

Neutrophils 85% **(Normal 55-70%)**

Eosinophils 0% (Normal 1-4%)

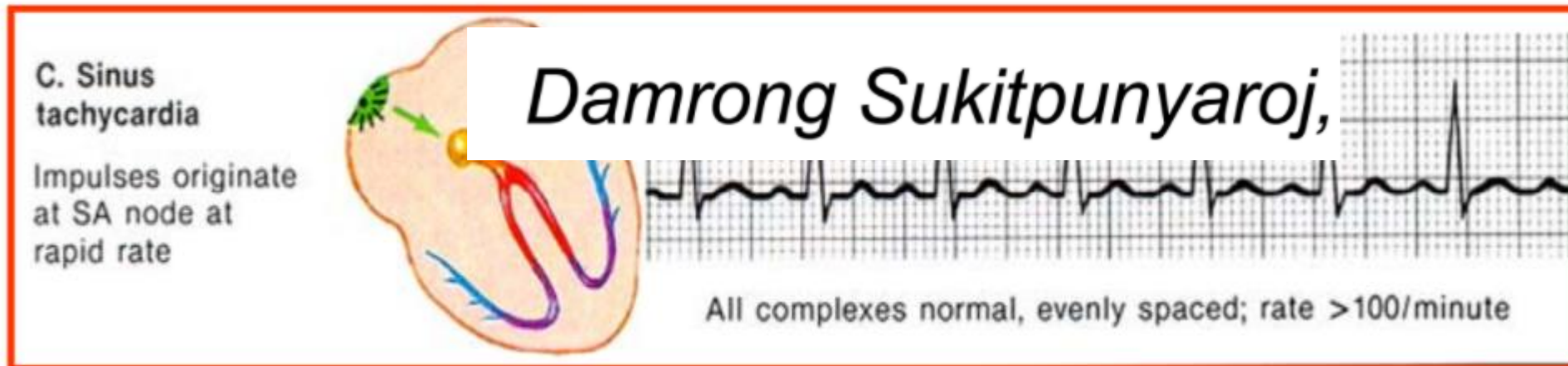
Basophils 0% (Normal 0.5-2%)

Lymphocytes 15% (Normal 20-40%)

Platelets 198,000 cell/cu.mm. (Normal 150,000-400,000 cell/cu.mm.)

Laboratory results

Sinus Tachycardia



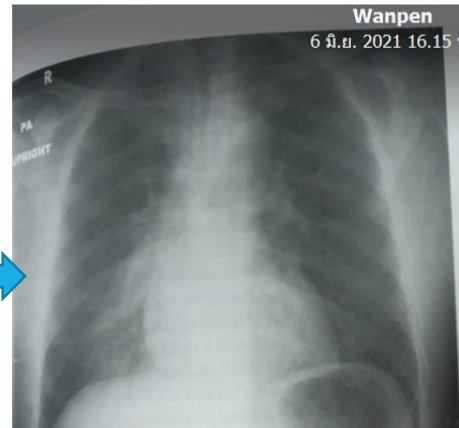
Picture from: Damrong Sukitpunyaroj

Assessment and analysis

Problem lists

1. Chest pain and shortness of breath 3 days,
2. Dyspnea associated with productive cough,
3. **Fever** 3 days, $T = 39.0^{\circ}\text{C}$,
4. Cannot perform daily activity life well and cannot eat and sleep as usual,
6. $P = 110$ beat/min (bpm), fullness, regular tachycardia rhythm,
 $R = 28$ bpm
7. Lungs: Percussion: resonant left, dullness at right base
Auscultation: Breathe sound – decreased at the right base
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• Chest X-ray ; **infiltration at right lower lobe**



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➤ Blood test: CBC

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Differential diagnosis

1. Acute Pneumonia
2. Pulmonary Edema ✗
3. Coronary Artery Disease ✗

Sinus Tachycardia

Final diagnosis : Acute Pneumonia

Specific treatment

Admission in IPD

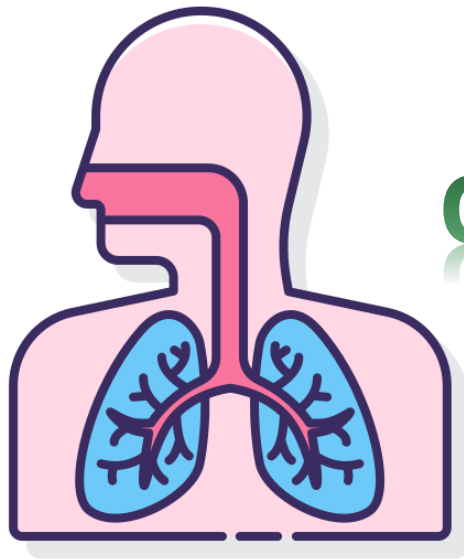
Antibiotic for 7-10 days such as;

- : Amoxicillin 500 mg 1x4 oral pc.
(first line drug)
- : Amoxicillin/clavulanate (Augmentin)
sig 500/125 mg. q 6 hrs.
(second line drug)
- : Erythromycin 500 mg 1x4
oral ac
- : Roxithromycin 150 mg 1x2 per oral
ac

Symptomatic treatment

- O₂ therapy
- Antihistamine:
Cetirizine 1x2 oral pc
- Acetaminophen
(Paracetamol) 500 mg. 2 tab
q 6-8 hrs. for fever or pain.
- Mixt. Tussis 15 ml. q 4 hrs.
- Soft diet

Case study of dyspnea



or



Lungs or heart?

Summary

- ✓ A man with chest pain and shortness of breath and fever for 3 days, and looking ill presented to the hospital.
- ✓ His physical examination showed tachycardia, lungs present dullness, decreased breathing sound, fine crepitation at the right base.
- ✓ His chest X-ray found infiltration at the right lower lobe, CBC revealed increased WBC and PMN elevation
- ✓ His definite diagnosis is acute pneumonia and had stay at a IPD.
- ✓ He gets antibiotics for 10 days and takes cetirizine, acetaminophen, and mixt. tussis for symptom management.



Thank You!



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