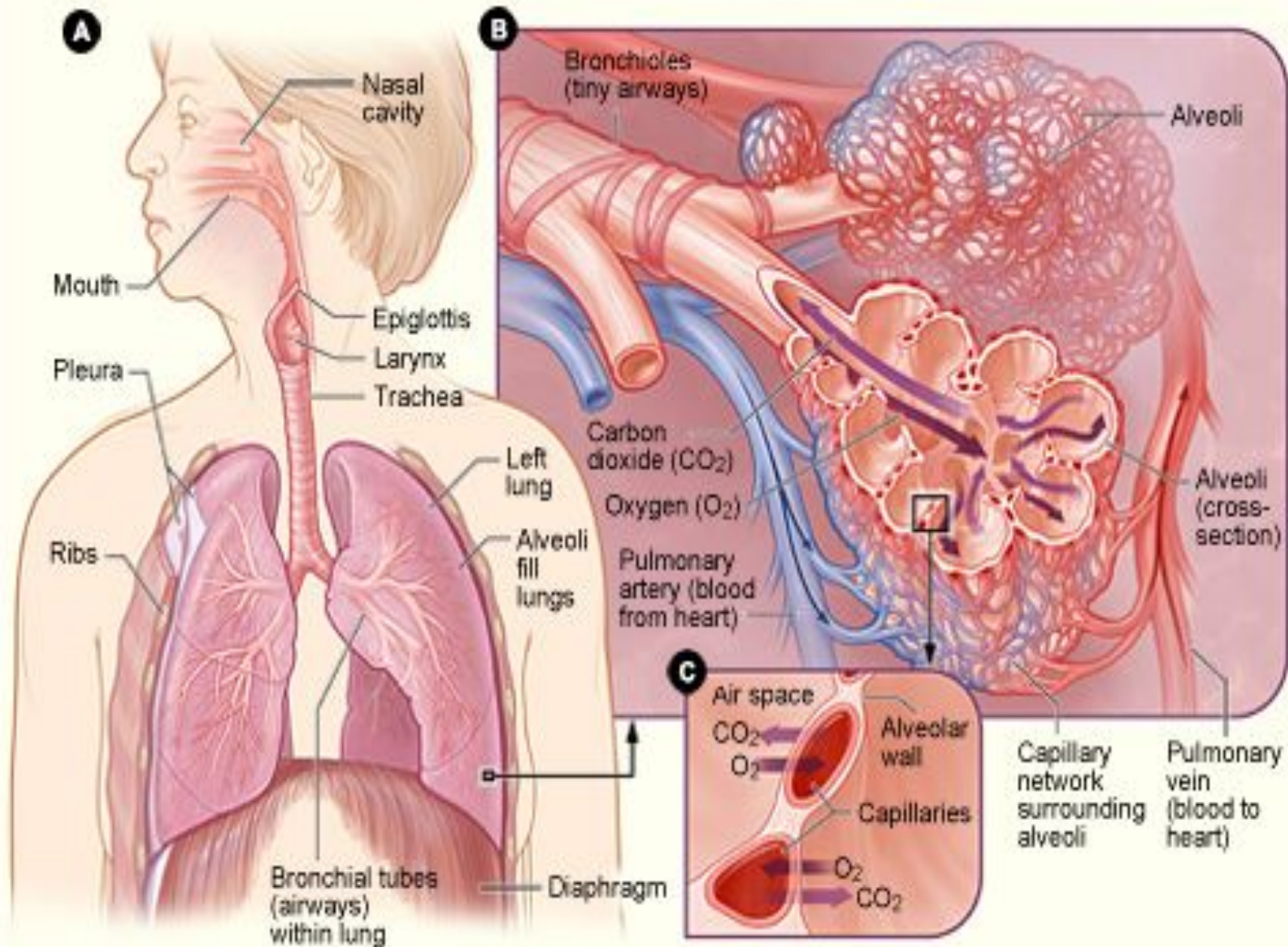


The Respiratory System



:Croup could be caused by all of the following, except ●

Laryngomalacia ●

Foreign body ●

Tracheomalacia ●

Laryngitis ●

Tetany ●

Acute Inflammatory Upper Airway Obstruction

Croup* ●

: Caused by- ●

parainfluenza type 1,2,3. ●

3 Most common in winter, age-months - 5 years (recurrences decrease with increasing growth of airway)

Inflammation of subglottis- ●

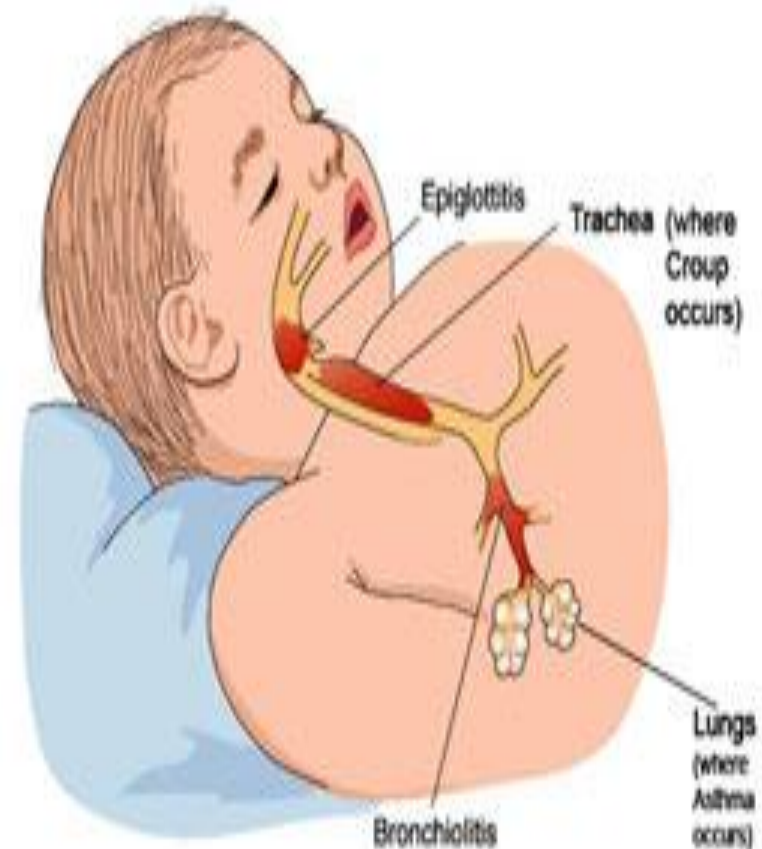


Figure 30-10 Location of airway obstruction in epiglottitis, acute laryngotracheobronchitis (croup), and bronchiolitis. (Courtesy of Carol Russell Hilner, CML)

:Signs and symptoms- ●

upper respiratory infection 1-3 days. ●

barking cough. ●

hoarseness. ●

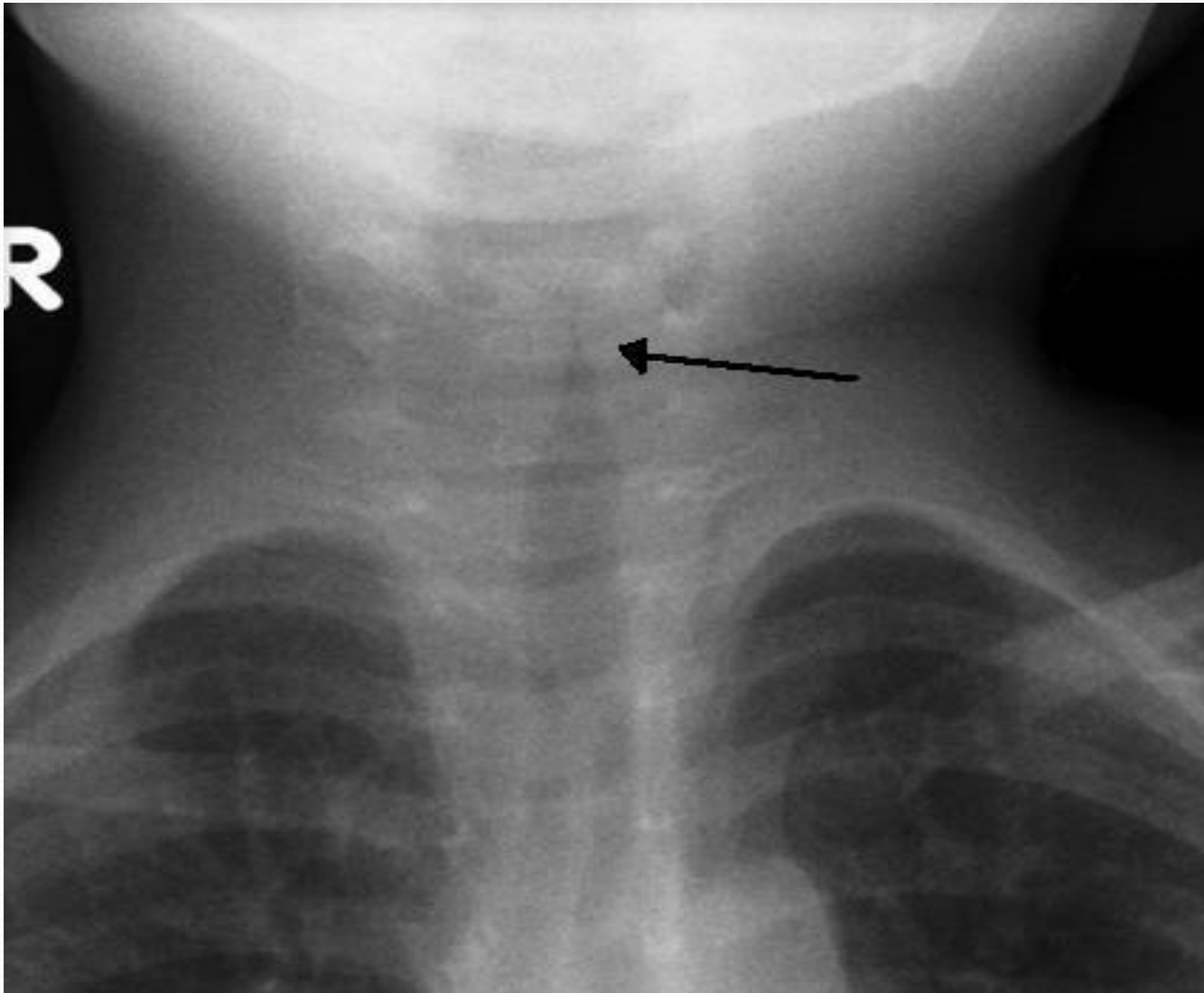
inspiratory stridor. ●

worse at night. ●

symptoms last for 1 week. ●

:Complications ●

hypoxia only when obstruction is complete. ●



Diagnosis.

.clinical (x-ray NOT needed
“steep sign if an x-ray is
performed”)

-Treatment:

.nebulized epinephren

.corticosteroid

: Croup could be caused by* ●

Laryngomalacia. ●

Foreign body. ●

Tracheomalacia. ●

Laryngitis. ●

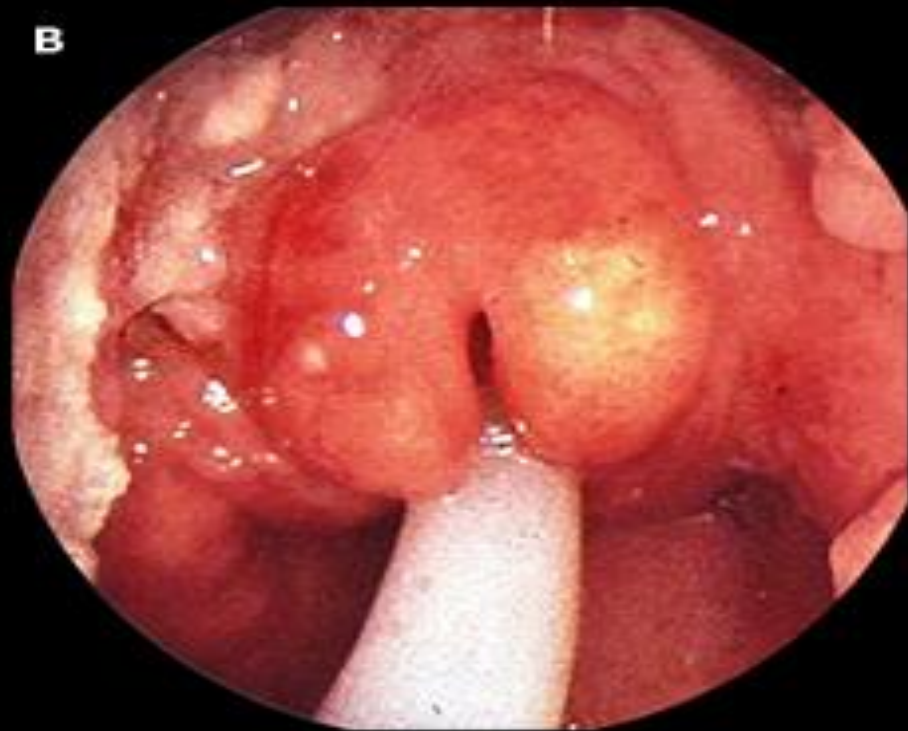
Epiglottitis. ●

Retropharyngeal abscess. ●

Epiglottitis ●

Is a medical emergency that requires anesthesia for- ●
immediate intubation/emergent cricothyroidotomy

Inflammation of EPIGLOTTIS-SUPRAGLOTTIS- ●



: Caused by ●

H-influenza type B. ●

streptococcus pyogenes. ●

streptococcus. ●

pneumoniae

staphylococcus aureus. ●

mycoplasma. ●



:Signs and symptoms-

- high fever, sore.
- throat, dyspnea, and rapidly progressing obstruction
- toxic-appearing, difficulty swallowing
- sniffing position (intubating).
- stridor is a late finding (near comp. obstruction)



:Complication- ●

complete airway obstruction and death. ●

:Diagnosis- ●

clinical first (do nothing to upset child),. ●

controlled visualization (laryngoscopy)

x-ray Not needed. ●
(thumb sign if x-ray
is performed)

:Treatment- ●

intubation 1st . ●

I.V antibiotics. ●



Laryngomalacia*

M.C.C of stridor in infant and children-

Collapse of supraglottic structures during inspiration stridor; less in prone position, and in 1st-2nd week of life and symptoms inc. Up to 6 months of life; exacerbated by any exertion

: Diagnosis-

laryngoscopy.

branchoscopy for associated anomalies

: Treatment-

supportive care.

surgery (supraglottoplasty).

Congenital subglottic stenosis*

2ND M.C.C of stridor-

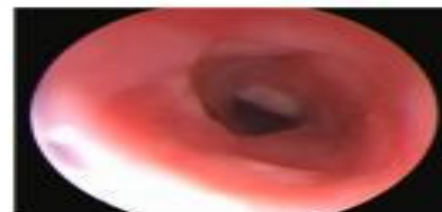
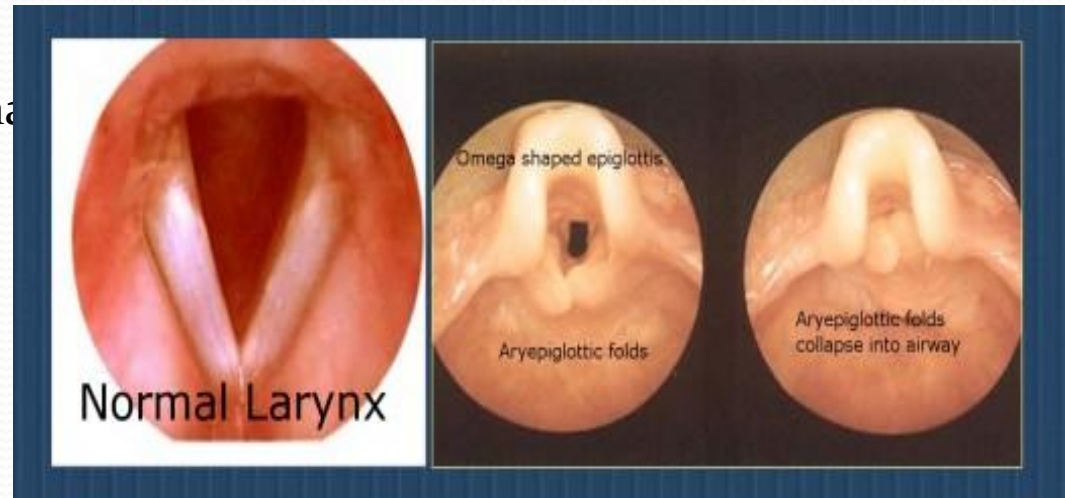
no difference supine vs. Prone position

: Diagnosis-

x-ray with laryngoscopy.

: Treatment-

surgery (tracheostomy).



Grade 1
Stenosis 0-50%



Grade 2
Stenosis 51-70%



Grade 3
Stenosis 71-99%



Grade 4
Stenosis 100%

Vocal cord paralysis*

3rd M.C.C of stridor-

: Diagnosis-

bronchoscopy.

: Treatment-

usually resolves in 6-12 months; may require temporary tracheostomy.

Airway foreign body*

Larynx is the M.C site of foreign body aspiration in children age <1 year-

In children age <1 year, think trachea or right mainstem bronchus-

Most seen in children age 3-4 years-

Most common foreign body is peanuts-

: Symptoms-

acute choking.

coughing.

wheezing.

stridor.

: Complication-

obstruction.

erosion.

infection (fever, cough, pneumonia, hemoptysis, atelectasis).

: Diagnosis-

bronchoscopy.

: Treatment-

bronchoscopy.

INFLAMMATORY DISORDERS OF THE SMALL AIRWAYS

Bronchiolitis*

: Caused by-

M.C respiratory syncytial virus(RSV).

parainfluenza.

adenovirus.

mycoplasma.

M.C in children by age <2 years-

Inflammation of small airway-

More common in female

: Signs and symptoms- ●

the onset is sudden with dyspnea. ●

severe cough (present always). ●

mild URI. ●

dec. appetite. ●

fever. ●

wheezy. ●

apnea more in young infants. ●

symptoms lasts average of 12 days (worse in first 2-3+ days) ●

- The onset is sudden with dyspnea
- Cough is present and severe always
- acidosis Changes of developing cyanosis and is high
- All of the diagnosed cases should be admitted and treated in the hospital

: Complications- ●

bacterial suprainfection, respiratory insufficiency and failure ●

: Diagnosis- ●

clinical. ●

chest x-ray. ●

PCR. ●

: Treatment- ●

supportive care. ●

beta-2 agonist nebulization (salbutamol). ●

NO STEROIDS. ●

High-risk patients only (hyperimmune RSV IVIG or- ●
monoclonal antibody to RSV F protein

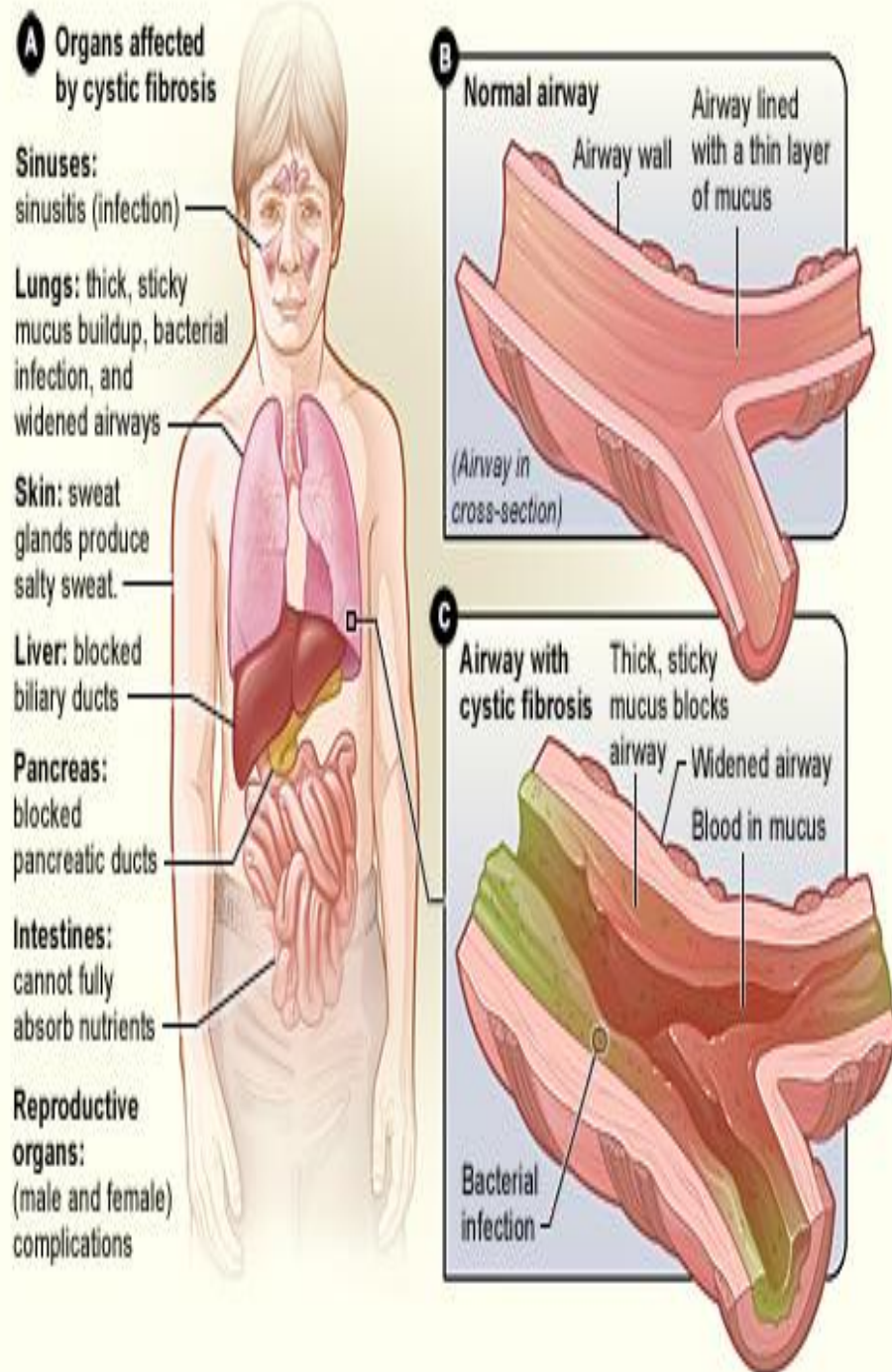


CYSTIC FIBROSIS(CF)**

- Autosomal Recessive Disease
- Cystic fibrosis gen located on-chromosome(7), more than gene mutation
- Major cause of severe chronic-lung disease and most common cause of exocrine pancreatic deficiency in children

: Symptoms-

- -Respiratory*
- failure to clear mucus secretion.
- bronchiectasis.
- reccurent respiratory infection.
- nasal polyp.
- clubbing,cyanosis(late).



-Pancreas* ●

pancreatic insufficiency. ●

malabsorption steatorrhea. ●

failure to thrive. ●

vitamin deficiency (A-D-E-K). ●

rectal prolapse. ●

hepatobiliary(cirrhosis-gall. ●

stones-hepatomegaly-varices-cholelithiasis-ascites)

acute pancreatitis. ●

-Genitourinary tract* ●

obstruction of vas deferens – azoospermia aneuploidy. ●

inc. incidence of hernia ,hydrocele,undescended testes. ●

females:secondary amenorrhea,cervicitis,dec.fertility. ●

-Sweat gland* ●

salty taste of skin. ●

: Diagnosis- ●

positive newborn screen. ●

identification of 2 CF mutations(homozygous)-DNA. ●

testing, isn't always diagnostic

BEST TEST (sweat test)_difficult in 1st week of life,. ●

confirm positive results, DIAGNOSIS >60mEq/L

: Treatment- ●

nebulizers. ●

DNase(mucolytic). ●

antibiotics(tobramycin). ●

vitamins supplementation(A-D-E-K). ●

pancreatic enzyme replacement. ●

: **Notes+** ●

: Presentations of cystic fibrosis* ●

Meconium ileus. ●

Recurrent chest infections. ●

Failure to thrive. ●

Steatorrhea. ●

Pneumonia*

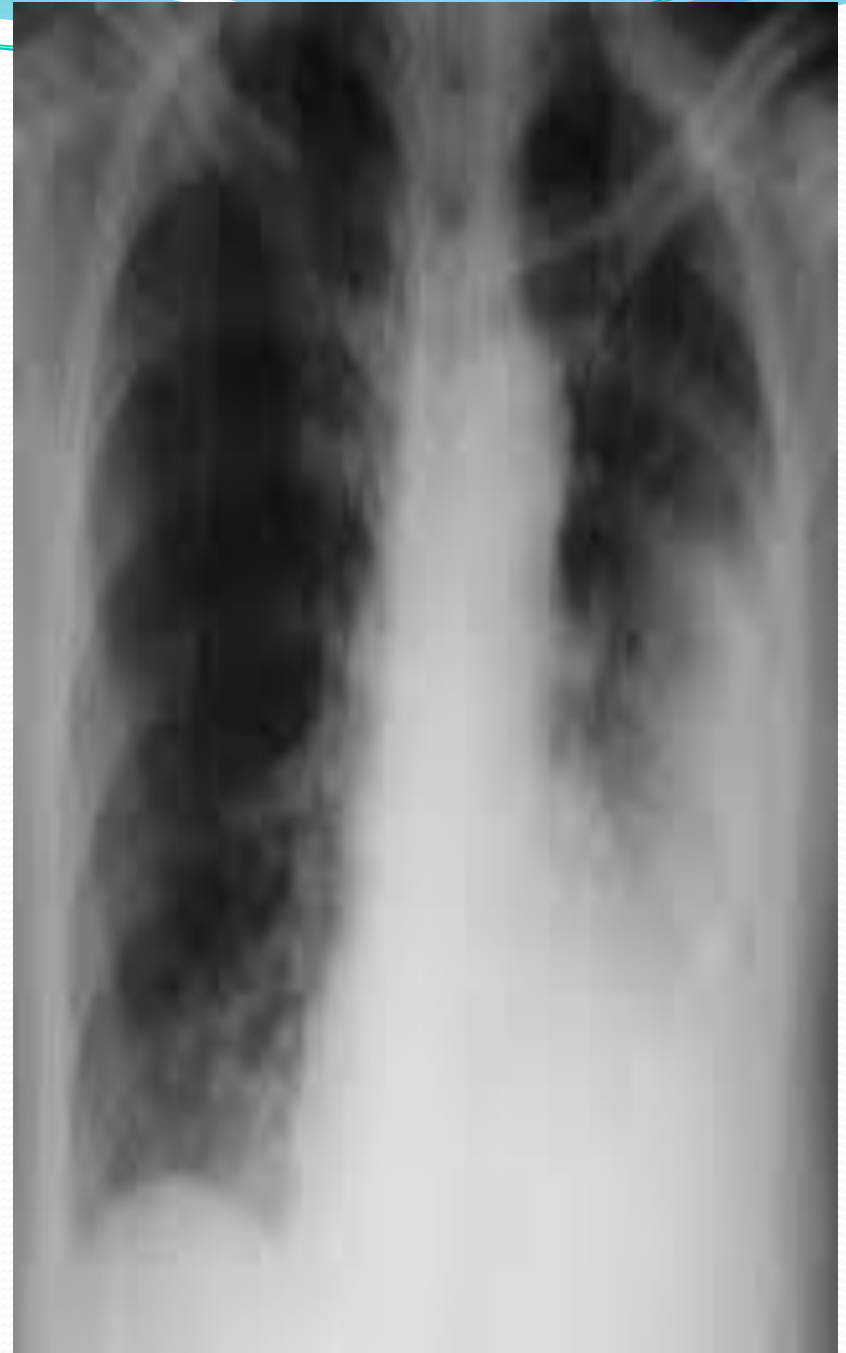
Inflammation of the-
lung parenchyma

Most(Neonate)-
common cause is
GROUP B

STREPTOCOCCUS

Most(Children <5yr)-
common cause is
vir.RSV

Most(Children >5yr)-
common cause is
M.pneumoniae,S.pneu
moniae



: Symptoms-

Viral*

1st day (URI symptoms; low-grade fever).

tachypnea.

cyanosis.

examination-crackles and wheezing.

Bacterial*

more sudden shaking chills.

high fever.

dry cough.

examination-breath sounds and dullness to.

percussion

: Treatment- ●

pneumococcus (penicillin). ●

viral (supportive). ●

chlamydia (erythromycin, azithromycin). ●



: Clinical Findings in Viral Versus Bacterial Pneumonia- ●

temperature (viral - incr.) (bacterial - incr.+). ●

URI (viral - +) (bacterial - -). ●

toxicity (viral - +) (bacterial - +++). ●

WBC (viral - normal or dec.) (bacterial - +++). ●

chest x-ray (viral - streaking, patchy) (bacterial - lobar). ●

diagnosis (viral - nasopharyngeal washing) (bacterial - ●

blood culture, transtracheal aspirate)



Dr. yazeed saif GH

0796518701

Internal doctor