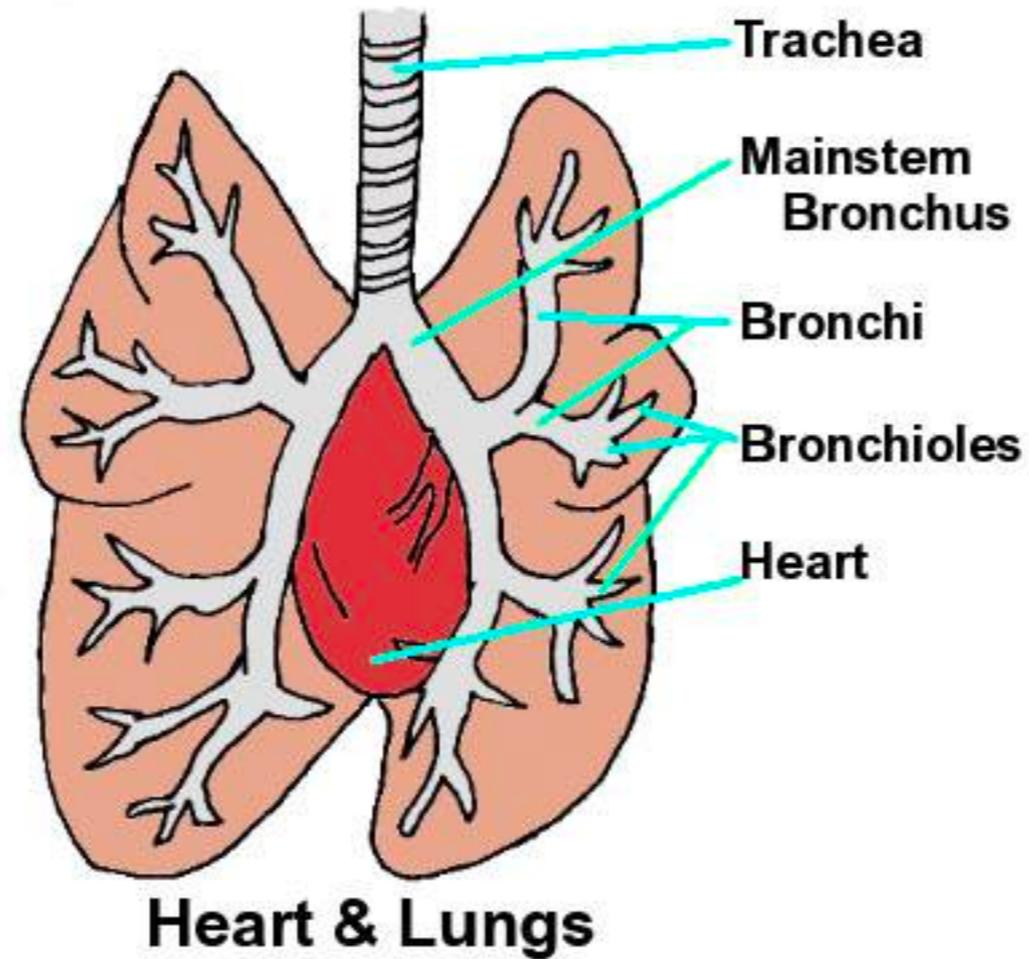


Diseases of the bronchi



Dr. Karima Al-Salihi

Acute bronchitis (Acute tracheo-bronchitis)

Definition:

It is the inflammation of large and or medium sized bronchi, while the inflammation of the small bronchioles is termed bronchiolitis.

Causes:

(1) Invasion of the mucous membranes of the bronchi by some microorganisms such as **streptococci or pasteurilla**. These organisms are present normally in the respiratory tract, but they become active and pathogenic when the defensive mechanisms of the animal is lowered due to cold weather or irritant vapour.

(2) Bad ventilation and sanitary measures in the stables: inhalation of CO₂ and ammonia from accumulated faeces and urine in the stables will irritate the mucous membranes of the bronchi and also lower the resistance of the respiratory bronchial tree.

(3) Extension of the inflammation from other parts of the respiratory tract (**airogenic**).

(4) During migration of lung worm larvae:

Dictyocaulus viviparous in cattle,

Dictyocaulus filarial in sheep and goat

Dictyocaulus amfieldi in equines

(5) Some specific diseases, where the bronchitis occurs in other courses e.g Strangles in horses, Hemorrhagic septicaemia and Canine distemper.

Clinical findings:

- (1) It starts with short dry painful cough then it becomes moist.
- (2) There is nasal discharge which is either mucoid or mucopurulent.
- (3) Continuous fever for 7 days.
- (4) Both pulse and respiratory rates are increased.
- (5) Dyspnea.
- (6) Congested MM and engorged eye capillaries.
- (7) Lung auscultation reveals dry rales at early stage then becomes moist rales on the second or third day from onset of the disease due to presence of abnormal secretion in bronchial tree. The rales are inconstant due to the movement of secretion within the bronchial tree especially after coughing. Sometimes crepitant rales may be heard due to the swelling of the bronchial mucosa which becomes adherent to one another and have to be separated by the stream of air (the crepitant rales are specific symptom in cases of bronchiolitis).

•**Diagnosis:**

It depends on:

- (1) Case history.
- (2) Clinical findings.
- (3) Bronchitis can be differentiated from pneumonia by means of auscultation and percussion.

Treatment:

(1) Hygienic measures:

- 1) Rest in good ventilated stable away from air draughts.
- 2) Give laxative green food free from dust to keep the bowel open.
- 3) Put a rage on the body of the animal specially the chest.

(2) Medical treatment:

- 1) Medical steam inhalation.
- 2) Apply poultice on the chest.
- 3) Respiratory expectorant.
- 4) Antimicrobials after sensitivity test.
- 5) Diuretics.
- 6) Heart tonic.
- 7) Supportive treatment: IV, 1-2 liters dextrose 40%.

Prognosis:

In acute bronchitis, prognosis is favourable, but in bronchiolitis it is very difficult.

Chronic bronchitis

Definition:

It is a chronic inflammation of the mucous membranes of the bronchi.

Causes:

- (1) It may follow the neglected acute form.
- (2) A continuous and mild action of the causative organism which cause the acute type.
- (3) Secondary to long standing infectious respiratory diseases as lungworm infestation, tuberculosis or glanders in horses or pulmonary abscess in cow.



Clinical findings:

- The symptoms of chronic bronchitis are the same as in acute bronchitis, but the course of the disease takes longer time
- and the signs aren't so intense as in the acute type.
- (1) Cough is severe but not painful and easily induced.
- (2) Only dry rales on auscultation.
- (3) Temperature is normal or slightly elevated.
- (4) Poor general condition.

Diagnosis:

(1) Exclude tuberculosis by applying tuberculin test.

(2) Exclude lungworm infestation by faecal examination.

Treatment:

The treatment of chronic bronchitis is the same as in

acute bronchitis but it is preferable to add **potassium iodide** in the expectorant mixture to liquefy the exudate.