

Pneumothorax

Definition

The accumulation of air in the pleural space

Etiology

spontaneous (primary pneumothorax), traumatic, or iatrogenic

Tension PTX

Secondary to a sucking chest wound or pulmonary laceration that allows air to enter the chest with inspiration but doesn't allow air to leave on expiration

Clinical features

Acute onset ipsilateral chest pain and dyspnea, hyper resonance, diminished breath sounds, mediastinal shift to contralateral side (with tension PTX)

Treatment--severely symptomatic/large PTX

Chest tube

Treatment--Tension PTX

*Medical emergency. Large bore needle insertion then chest tube following decompression

Tension PTX Buzzwords: Stab wound to chest. Hypotension, tracheal shift

Spontaneous PTX Buzzwords: Tall, skinny, male, band student, acute onset one-sided chest pain, dyspnea

Pleural Effusion

Definition

The accumulation of significant volumes of pleural fluid (25% from malignancy)

1.Exudates

"Leaky capillaries" (infix, malignancy, trauma)

2.Transudates

"Intact capillaries", associated with increased hydrostatic or decreased oncotic pressures (CHF, atelectasis, renal disease, liver disease/cirrhosis)

3.Empyema

Infection within the pleural space

4.Hemothorax

Bleeding into the pleural space (trauma, malignancy)

Clinical features

Dyspnea, dull-to-flat percussion over area of fluid, mediastinum shifted away from side of large effusion (often asymptomatic though)

Pleural Effusion (cont)

Gold standard diagnostic

Thoracentesis: fluid sent for protein, LDH, pH, WBC w/ diff, glucose, cytology, Gram stain w/ culture/sensitivity

Criteria to determine transudate vs. exudate

Light's Criteria (fluid is exudate if any apply)

Light's Criteria (cont'd)

1) Pleural fluid protein to serum protein ration	>0.5	Exudative
2) Pleural fluid LDH to serum LDH	>0.6	Exudative
3) Pleural fluid LDH > upper 2/3 of normal serum LDH		Exudative

