Signs and Symptoms of Pulmonary Embolism

Reviewers: Tristan Jones Virchow's Triad: Hypercoagulable state, Venous Notes: Man-Chiu Poon* · One of most understasis, vessel Injury (*See Suspected DVT) Lynn Savoie* diagnosed conditions, * Indicates faculty member typically asymptomatic, with at time of publication **Deep Vein Thrombosis** - Popliteal, femoral, iliac veins tachycardia often being the only sign Consider DVT and PE as one disease: if PE is suspected, Clot migrates to IVC → Right Atrium of heart look for signs and symptoms → Right ventricle → Pulmonary vasculature. of DVT • Absence of DVT DOES NOT rule out PE Large clots (saddle emboli) are lodged in pulmonary arteries Small clots are lodged in pulmonary arterioles If circulation to lung periphery is Saddle Embolus Clot ↓ pulmonary arterial/. cut off, sub-pleural lung tissue can (pulmonary artery arteriolar bloodflow obstruction) become ischemic and infarct ↓ CO2 delivery to the ↓ delivery of Well-ventilated (V) Backup of blood Irritation of somatic sensory Ischemic tissue lungs for exhalation deoxygenated areas of the lung do not into right heart nerve endings on the becomes inflamed, receive adequate blood blood to alveoli for parietal pleural membrane adheres to pleura oxygenation supply (Q); vice versa Less CO2 exhaled, CO2 **Right Heart Strain** builds up in the blood, Low O2 in blood (↓ O2 triggers medullary V/Q mismatch saturation), detected Pain stimulates Pleuritic Chest pain chemoreceptors to ↑ (on V/Q scan) by aortic/carotid (focal, localized chest adrenergic response respiratory rate chemoreceptors pain that occurs with each breath) Signals brain to Signals brain to ↑ respiratory rate ↑ heart rate Pleural friction rub (sandpaper-like **Dyspnea/Shortness of Tachycardia** sound heard on (most sensitive indicator of PE, but very non-specific) breath (SOB) auscultation)

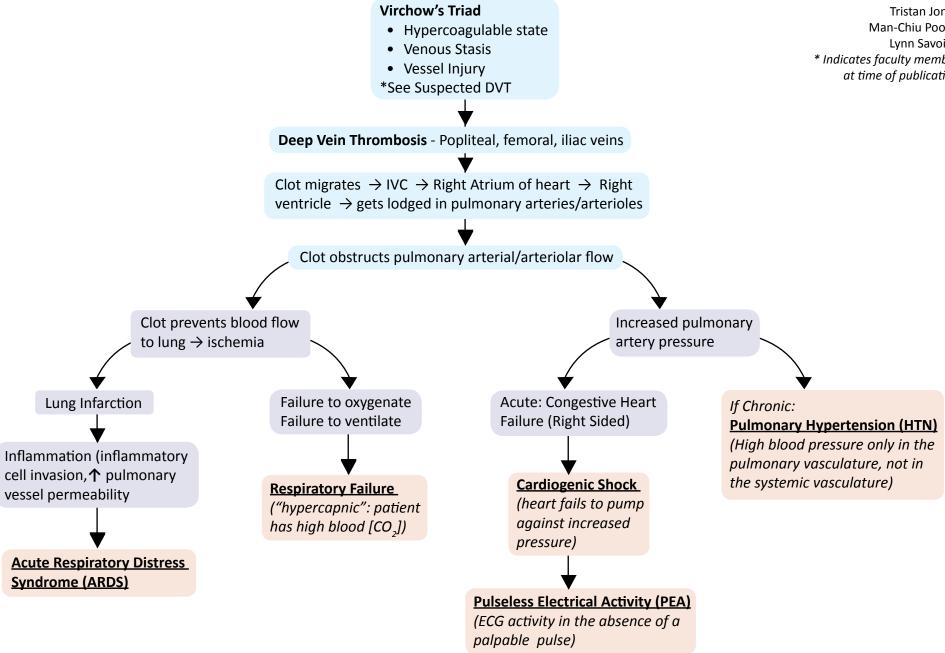


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Complications of Pulmonary Embolism

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