Shortness of Breath

Morning Report 6/23/09
Tim Kubal
A-a Gradient

- ABG: 7.49/28/84/23.5/97% on 50% FiO2
Her A-a gradient is huge

- V/Q mismatch
- Shunt
- Alveolar hypoventilation

- (PE, PNA, ARDS, PCP, interstitial lung disease, PFO, AVM)
Hypoxia with a NLA-a gradient

• Hypoventilation or inspiration of a low FiO2.

• In house: Narcan until proven otherwise but could also be COPD, Neuromuscular disease.
1st hospitalization

- Positive Enzymes=Cath
- The forest for the trees
2nd ED visit CXR
ED of 2nd hosp stay

- CXR: Pneumonia
- Again, the forest for the trees
PE

- 1/1000 per year
- Much higher in hospital population
- DVT prophylaxis!
- Virchow’s triad: Vessel damage, stasis, hypercoaguable state.
PE Dx

- Tachypnea, Tachycardia, Hypoxia, Hypotension, CP, Cough, Hemoptysis
- D-Dimer, PE CT or V/Q scan
- Consider LE PVL’s if you can get them and Dr. Kizer isn’t your attending.
- Very few people escape the ED without this workup even if they don’t need it.
Treatment-Stable

- Typical ED admission
- UFH thrombosis nomogram or LMWH SQ 1mg/kg BID for at least 5 days or longer if not therapeutic on coumadin at that time.
Treatment- Unstable

- Heparinize regardless.
- Consider filter if thrombus is still present in the LE’s. Prevent 2nd PE.
- Consider TPA.
Indications for the use of thrombolytics

- Massive PE
- Submassive PE with hemodynamic compromise
- RV strain/impending severe disability
- Risks/Benefits discussion
- Risks: 15% severe bleeding, ~2% death from ICH.
Hypercoaguable state

- FVL
- Prothrombin gene mutation
- AT3
- Protein C/S
- Lupus Anticoagulant, Anticardiolipin AB
- Anti-B2 Glycoprotein.
How long on coumadin

- Life threatening: Coumadin for life
- Two episodes: Coumadin for life
- One episode w/2 genetic mutations or AT3/antiphospholipid syndrome: for life
- One provoked thrombosis: 3-6 months.
Outcome

- Pre-tpa: Hypoxia and SOB with mvmt
- Post-tpa: Ambulation w/mild SOB w/o O2