Dilated Cardiomyopathy – Questions and Answers

Key Points:

1. **What is the most common cause of dilated cardiomyopathy?** In a series of 1230 patients with initially unexplained dilated cardiomyopathy, idiopathic DCM was by far the most common etiology (50%). Other common culprits were myocarditis (9%), ischemic (7%), infiltrative (5%), peripartum, hypertensive, and HIV (all 4%). Of note, ischemia is by far the most common cause of congestive heart failure, usually via myocardial infarction which leads to scar tissue with diminished contractile function, but much less commonly causes dilated cardiomyopathy. Other causes of DCM include the following:
   - Medications: particularly chemotherapeutics like doxorubicin; also antiretrovirals
   - Tachycardia (chronic)
   - Toxins: including ethanol, cocaine, amphetamines, lead and other heavy metals
   - Familial
   - Autoimmune: may be associated with SLE, Takayasu’s, scleroderma or isolated
   - Infections: viral (including HIV), rheumatic fever, diphtheria, rickettsia, Lyme, parasitic (Chagas’ disease)
   - Infiltrative: hemochromatosis, amyloidosis, sarcoidosis
   - Endocrine: hyper/hypothyroid, acromegaly, pheo, DM, Cushing’s
   - Neuromuscular disorders: muscular dystrophies

2. **What percentage of CHF-related pleural effusions are unilateral?** Several studies have attempted to answer this question…
   a. Autopsy study of 250 patients with CHF and pleural effusion: 88% were bilateral; of the 12% that were unilateral, 46% had an associated PE or pneumonia
   b. Retrospective chart review of 55 patients with CHF and a transudate on thoracentesis: 19 had equal bilateral effusions, 18 had predominantly R-sided, 17 predominantly L-sided
   c. Series of 51 patients with CHF and effusions: 73% had bilateral effusions, 19% unilateral R-sided, 9% unilateral L-sided

3. **Should unilateral pleural effusions in patients with CHF be tapped?**
   - According to Drs. Light and Broaddus in Murray & Nadel’s *Textbook of Respiratory Medicine*: “In a patient with congestive heart failure and a pleural effusion, a diagnostic thoracentesis should be performed if the pleural effusion is unilateral, if bilateral effusions are not comparable in size, if the patient is febrile, if the patient has pleuritic chest pain, or if the patient does not have cardiomegaly. If none of these conditions is met, one can treat the congestive heart failure and perform a diagnostic thoracentesis only if the effusion does not resolve.”

4. **What are the causes of hyperferritinemia?**
   - Ferritin is an acute-phase reactant that reflects total body iron stores. Elevated values can be seen in 5 disease categories. Note, values > 1000 mg/dL are typically associated with iron-overload and not just inflammation.
     - Iron overload: hemochromatosis, Wilson’s disease, transfusion, thalassemia
     - Inflammation: acute/chronic infections, IBD, RA, SLE, Still’s, heme cancers
     - Liver disease: Chronic Hep B and C, NASH, acute viral hepatitis
     - Alcohol excess
     - Misc: thyrotoxicosis, extreme exercise, Familial hyperferritinemia-cataract syndrome (Bonneau-Baeumont Syndrome)

References