Case Study - Pleural Effusion

1. Your patient is a 68-year-old man with a history of hypertension and myocardial infarction. He presents to your clinic with increasing shortness of breath. The physical examination reveals dullness at both bases and peripheral edema. The chest x-ray reveals bilateral pleural effusions which are somewhat asymmetrical in size. This patient most likely has congestive heart failure.

   A. True
   B. False

2. The patient undergoes diagnostic thoracentesis. The fluid is straw colored. The pleural fluid to serum protein ratio is less than 0.5, the pleural fluid LDH to serum LDH ratio is less than 0.6 and the pleural fluid LDH level is less than 2/3 the upper limit of normal for your laboratory. This fluid clearly qualifies as a transudate. To classify this fluid as an exudate the following circumstances must exist:

   A. One of these criteria is abnormally high.
   B. Two of these criteria are abnormally high.
   C. All three criteria must be high.
   D. One criteria must be high but it must be present on two consequent taps.

3. The white blood cell differential on the pleural effusion reveals more than 10% eosinophils. The following possibilities should be considered:

   A. The patient is having a drug reaction
   B. The patient has a pulmonary embolus with intrapleural bleeding
   C. The patient has recently had a silent pneumothorax which has resolved
   D. This result has no significance and can be ignored.

4. If the white blood cell differential on this fluid revealed a predominance a lymphocytes the following diagnoses should be considered:

   A. Pneumonia
   B. Carcinoma
   C. Tuberculosis
   D. Pancreatitis

5. In general the etiology of all pleural effusions can be established through extensive evaluation.

   A. True
   B. False
6. Pick the incorrect answer among the following statements:

A. Pulmonary embolus can be associated with a blood pleural effusion
B. Pulmonary embolus can be associated either with a transudative or exudative effusion
C. Pulmonary embolus is associated with an increased percent neutrophils in the pleural fluid
D. When a pulmonary embolus is associated with a pleural effusion, the pleural effusion is usually large.