

# Electrocardiographic Changes in Infectious Diseases

Sandhya Nalmas, MD

This month's quiz is based on the article, "Electrocardiographic Changes in Infectious Diseases," which begins on page 15 of this issue. Choose the single best answer for each question.

- All of the following statements regarding HIV cardiomyopathy are true EXCEPT**
  - Asymptomatic prolonged QTc interval is associated with increased cardiovascular mortality
  - Cardiac involvement is seen predominantly in advanced HIV infection
  - CD4 cell count greater than 200 cells/ $\mu$ L is associated with development of cardiomyopathy
  - The prevalence of prolonged QTc interval increases in advanced stages of HIV
- Which of the following statements regarding Lyme disease is true?**
  - Cardiovascular manifestations are seen in the first 14 days following infection with *Borrelia burgdorferi*
  - Changes on electrocardiogram (ECG) can be seen in all stages of disease
  - ECG abnormalities in patients with probable Lyme disease are suggestive of the disease
  - Erythema migrans is always accompanied by changes on ECG
- Which of the following statements regarding electrocardiographic changes in Chagas' disease is true?**
  - Conduction abnormalities are uncommon findings
  - ECG findings during the early asymptomatic stage can distinguish patients with benign disease from those with lethal complications
  - The prevalence of abnormal findings decreases with age
  - The prevalence of abnormal findings decreases with the presence of *Trypanosoma cruzi* antibodies in the serum
- Which of the following statements regarding leptospirosis is true?**
  - Atrioventricular blocks are rarely seen
  - Chronic pericarditis is commonly seen
  - Electrocardiographic changes are caused by interstitial myocarditis
  - The electrocardiographic changes do not predict the prognosis
- Which of the following statements regarding infective endocarditis is true?**
  - ECG abnormalities are not seen in patients with prosthetic valves
  - ECG findings predict mortality risk but do not predict the invasiveness of the disease
  - Heart blocks could represent the presence of myocardial abscess
  - Patients with heart blocks rarely need surgical intervention
- All of the following statements pertaining to ECG manifestations of heart disease caused by diphtheria are true EXCEPT**
  - Changes suggestive of acute pericarditis are common
  - Changes persist several days after the resolution of symptoms
  - Changes suggestive of myocarditis are found in most patients
  - Ventricular ectopy on presentation predicts a worse outcome
- Which of the following antibiotics is least likely to have proarrhythmic effects?**
  - Azithromycin
  - Erythromycin
  - Ketoconazole
  - Pentamidine

For answers, see page 40.

---

Dr. Nalmas is a fellow, Division of Infectious Diseases, Newark Beth Israel Medical Center, Newark, NJ.

**Answers to the Clinical Review Quiz, which appears on page 36. The article on electrocardiographic changes in infectious diseases begins on page 15.**

1. (C) CD4 cell count greater than 200 cells/ $\mu$ L is associated with development of cardiomyopathy
2. (C) ECG abnormalities in patients with probable Lyme disease are suggestive of the disease
3. (B) ECG findings during the early asymptomatic stage can distinguish patients with benign disease from those with lethal complications
4. (C) Electrocardiographic changes are caused by interstitial myocarditis
5. (C) Heart blocks could represent the presence of myocardial abscess
6. (A) Changes suggestive of acute pericarditis are common
7. (A) Azithromycin

Copyright 2007 by Turner White Communications Inc., Wayne, PA. All rights reserved.