Cardiac (Heart) Poster

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Cardiac Manifestations of Tick-Borne Diseases

Lyme disease, *Borrelia burgdorferi* (Bb)
- Can directly attack heart and endothelial cells (which line the blood vessels).
- Injection can involve multiple tissues that make up heart valves and surrounding blood vessels.
- Can affect blood vessels of all sizes, causing vasculitis.
- Endocardial and aortic valve involvement can disrupt normal function of heart and blood vessels, resulting in increased cardiac load, altered blood flow, and changes in pulse and blood pressure.

Carditis: the general term for any inflammation of the heart; Lyme disease can affect any layer of the heart, from the interior to the exterior lining.

Pancarditis: term used when all layers are involved.

The following list describes functional problems and symptoms associated with cardiac involvement in Lyme disease:

I. Pericarditis: results from inflammation of the pericardial membrane: infection can cause death or lead to:
- Pericardial friction rub
- Cardiac tamponade
- Death

II. Endocarditis - inflammation of the valves and/or inner lining of the heart chambers:
- Causes severe and permanent damage to natural valves, and potentially, prosthetic ones.
- Can lead to a new heart murmur or a change in an existing one.
- Damage to valves can lead to heart failure and death.
- Damaged valves more susceptible to recurrent infections.
- Initial symptoms may include fever, weakness, fatigue, loss of energy, and night sweats.
- Symptoms can last for weeks.

III. Periorchitis - inflammation of the scrotum:
- Can cause severe and permanent damage to natural testis, and potentially, prosthetic ones.
- Can lead to a new heart murmur or a change in an existing one.
- Damage to valves can lead to heart failure and death.
- Damaged valves more susceptible to recurrent infections.
- Initial symptoms may include fever, weakness, fatigue, loss of energy, and night sweats.
- Symptoms can last for weeks.

IV. Pericarditis - inflammation of the pericardial membrane:
- Causes severe and permanent damage to natural valves, and potentially, prosthetic ones.
- Can lead to a new heart murmur or a change in an existing one.
- Damage to valves can lead to heart failure and death.
- Damaged valves more susceptible to recurrent infections.
- Initial symptoms may include fever, weakness, fatigue, loss of energy, and night sweats.
- Symptoms can last for weeks.

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This document provides practical and public information on the subject matter outlined; it is not a substitute for medical or professional advice. Anyone with health concerns should consult a physician or other qualified health professional. The LDA is committed to promoting the public's awareness of tick-borne diseases and Lyme disease in North America. For more information, please contact the LDA, PO Box 1438, Jackson, MI 49205-9957.