Pathophysiology of Cardiovascular Involvement in SLE
The cardiovascular complications in SLE are largely due to systemic inflammation, autoimmunity, and endothelial dysfunction. Studies have shown that inflammation causes the formation of atherosclerotic plaques and promotes cardiovascular events, such as myocardial infarction and stroke (Justiz et al., 2023). The immune complexes in SLE can directly damage blood vessels, leading to vascular complications like vasculitis and endothelial injury, which contribute to the development of cardiovascular disease in SLE patients (Kostopoulou et al., 2020).

Symptoms and Clinical Manifestations of SLE in the Cardiovascular System
Common cardiovascular symptoms of SLE include pericarditis, myocarditis, and accelerated atherosclerosis. As pericarditis p resents with chest pain, it is often one of the earliest signs of cardiovascular involvement. These symptoms severely impact daily activities and quality of life (Justiz et al., 2023).

Diagnostic Tests for SLE-Related Cardiovascular Complications
Diagnostic tests commonly employed in the assessment of cardiovascular complications of SLE include echocardiography, electrocardiogram (ECG), and advanced imaging like coronary angiography. These tests are essential for evaluating myocardial involvement, vascular changes, and heart function (Lazar & Kahlenberg et al., 2023).

Current Treatments for Cardiovascular Symptoms in SLE
Management of cardiovascular involvement in SLE includes corticosteroids, immunosuppressive drugs, and antimalarials. These treatments aim to reduce inflammation and prevent further cardiovascular events. However, they require careful management due to potential side effects, especially with long-term use of corticosteroids. Statins and antiplatelet therapies are also used to mitigate cardiovascular risks, particularly related to atherosclerosis (Nor et al., 2023).

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