

### 3. CARDIOVASCULAR DAMAGE IN CHILDREN WITH SYSTEMIC LUPUS ERYTHEMATOSUS



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**Introduction.** Juvenile Systemic Lupus Erythematosus (jSLE) is a rare autoimmune disorder affecting multiple systems in children and adolescents causing unique challenges in diagnosis and management. Cardiovascular involvement, although rare, is a potentially life-threatening complication of jSLE, necessitating a thorough exploration of existing literature to understand the extent and implications of cardiovascular damage in this vulnerable population.

**Aim of study.** Kids are not to be treated as ‘little people’. While research has progressed in understanding the cardiovascular implications of adult-onset SLE, the scarcity of studies on cardiovascular damage in children with SLE is a concern due to significant differences in clinical features. This literature review aims to thoroughly examine the cardiovascular damage in children with Systemic Lupus Erythematosus. It seeks to analyze the prevalence and types of cardiovascular complications, identify risk factors and explore early diagnostic markers. The ultimate objective is to improve comprehension, guide future research and develop recommendations for the prevention and management of cardiovascular complications in jSLE.

**Methods and materials.** A systematic approach was employed to examine peer-reviewed articles and studies across databases such as PubMed, Google Scholar and Science Direct, prioritizing publications from the last decade. Keywords include “juvenile systemic lupus erythematosus” “children with sle” “cardiovascular damage in sle”

**Results.** The synthesis of the literature reveals that cardiovascular involvement in jSLE is primarily manifested as pericarditis, valvulopathies, and premature atherosclerosis. Non infective endocarditis and cardiac tamponade are rare. Vasculitis is predominantly cutaneous than visceral. Additionally, the review highlights the presence of increased disease activity, impact of traditional cardiovascular risk factors and immunological factors on the development and progression of cardiovascular damage in this pediatric population. Early disease onset and exposure to early corticosteroid treatment further burdens ease of life for children.

**Conclusion.** In conclusion, this literature review reveals the need for heightened awareness and comprehensive management of cardiovascular damage in children with SLE. The findings emphasize the multifactorial nature of cardiovascular damage in jSLE and the importance of early detection and age-appropriate interventions to improve outcomes and quality of life for children and adolescents with SLE.