Systemic Lupus Erythematosus

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NR283: Pathophysiology

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Systemic Lupus Erythematosus

Systemic lupus erythematosus, also known asl SLE or lupus, is a complex disorder that affects multiple systems of the human body (Murphy, 2022). The exact cause of the disease is unknown. It is believed that impaired immune regulation, influences from the environment, and viral susceptibility may trigger it. Mortality rates remain high due to cardiovascular disease, infections, and lupus nephritis. A thorough clinical assessment should include a comprehensive history, detailed physical examination, and appropriate laboratory testing. Effective management requires an understanding of SLE complications and related comorbidities.

SLE is a worldwide health concern that disproportionately affects certain ethnic and racial groups (Barber et al., 2023). People of Asian, Black, Hispanic, and Indigenous backgrounds are among those who experience higher prevalence, incidence, morbidity, and mortality rates. SLE disproportionately impacts women of reproductive age. This higher prevalence among females may be linked to female sex hormones (Murphy, 2022). However, many of the world's most populous regions, lack up-to-date epidemiological data (Barber et al., 2023).

Etiology and Risk Factors

Systemic lupus erythematosus (SLE) multisystem chronic disease with an unclear cause, though its development is influenced by a combination of genetic, immunological, endocrine, and environmental factors (Vaillant et al., 2023). Systemic lupus erythematosus (SLE) occurs approximately ten times more frequently in women than in men, and individuals with Klinefelter syndrome (47, XXY) face a 14 times higher risk, pointing to a possible role of X-linked genes. Female sex and hormonal factors are key contributors to SLE susceptibility. Both estrogen and prolactin promote autoimmune responses by increasing the production of B-cells and influencing