

**International Egyptian Journal of Nursing Sciences and Research
(IEJNSR)**



Review article

Received 2020-11-27

Accepted 2020-12-9

Published 2021-1-4

Systemic Lupus Erythematosus (SLE)

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Abstract

Lupus is a disease in which the self-immune system destroys healthy body tissue by unintentional error. The systemic lupus erythematosus (SLE) is a type of lupus, a prolonged inflammatory disease caused by many factors and negatively affects the majority of body systems. It occurs when self-immune system destroys healthy body tissues by unintentional error. Lupus is unpredictable and characterized by states of exacerbation and remission. WHO reported that the incidence of lupus is common in females than males by 10-1 . In the United States, about 2 to 8 persons per 100,000 are affected with systemic lupus. Women of childbearing years between the ages of 22 and 40 (80-90%) are the most affected cases, it is more likely to develop in African, Asian, Hispanic, and Native Americans than whites. 80% of lupus patients are between 15 and 45 years of age. The etiology of lupus is unknown; Genetic influence, Hormones, Environmental factors, and certain medications are the most likely causes. Managing SLE often depends on the patient's disease severity and signs, while hydroxychloroquine has an essential role in the long-term management of lupus.

Keywords: Systemic, lupus, Erythematosus.

Pathophysiology:

The presence of rare antibodies in the blood is one of the most common characteristics of lupus. The reasons for systemic lupus erythematosus are unidentified, however, heredity, viruses, ultraviolet light, and drugs all may play some role (1,2,7,8). Lupus occurs when

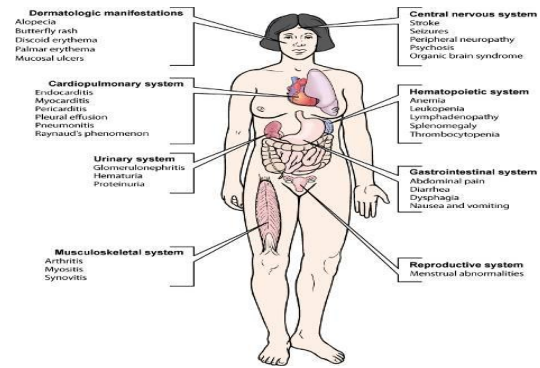
the self-immune system destroys healthy body tissue by unintentional error. It has a negative effect on the majority of body systems. (3,4,5,6). Because lupus affects all body systems, diagnosis and treatment should be performed early to reduce tissue damage and enhance health. both physical and clinical findings, in addition

to, proper tests are needed to diagnosis a case of SLE (4,5).

Antinuclear antibodies (ANA) test must be positive, and at least four out of eleven typical characteristics of the disease, one or more of the following tests are needed to clarify the diagnosis (13,14). It is not easy for doctors to make exact /accurate diagnose of SLE cases, however, it may consume time like months or even years because of the gradual appearance of new symptoms, in addition, doctors need to obtain complete, precise medical history to confirm the diagnoses. For doctors to exclude any other diseases that may mimic lupus, history , and a physical examination plus laboratory tests results must be accurate. (15,16)

Diagnostic Tools for Lupus: There is no one specific test to be used, however ,many tests are required to confirm the diagnosis (16). Patient`s history, physical examination, Laboratory tests: Complete blood count (CBC), Erythrocyte sedimentation rate (ESR), Urinalysis, Blood chemistries, Complement levels such as decrease C3 and C4 indicating active disease, Antinuclear antibody test (ANA): sensitive but not specific to SLE. Other autoantibody tests (anti-DNA (specific but not sensitive), anti-Sm, anti-R o (anti-Sjögren's-syndrome-related antigen A autoantibodies), anti-La antibodies , and lupus erythematosus cell test. Immunoglobulins and complement deposition in the dermal-epidermal junction in 90% of patients can be displayed through a skin biopsy. Kidney biopsy is the most effective tool for the diagnosis of lupus nephritis (15,16,17).

Effect of SLE on different body systems adopted from (9,10)



The American Rheumatology Association standards for diagnosis of lupus

Rashes on cheeks, red, peeling coverings on the skin which cause damaging, reaction to sunlight, oral sores, pain, tenderness, or swelling of the joints, presence of protein in the urine, convulsions, and or mental disorder, inflammation of the membranes around the lungs, and/or the heart, low red blood count and /or low white blood count < 4000/ μ L, and /or decrease in lymphocytes in blood < 1500/ μ L, or decrease in blood platelets < 100,000/ML (11,12).

Treatment of SLE:

All the prescribed medications for treating patients with SLE are used to minimize/ relieve signs and control flares, they cannot treat the disease completely. Treatment medications include the following; Nonsteroidal Anti-inflammatory Drugs (NSAIDs), Acetaminophen., Corticosteroids: Antimalarial, Immunomodulating drugs, and Biologic Drugs (18,19). Also, unconventional treatments of lupus are recommended to help decrease the symptoms such as Acupuncture and massage for managing muscle and joints pain and inflammation. **Stress management** is used to stimulate easing through the use of meditation, hypnotherapy, and yoga which play important role in improving health and increase the body's ability to fight the disease (20).

Nutritional recommendations for lupus include: consume a balanced diet with a

condensed amount of red meat and dairy products (dairy products induce pain results from gastric problems). Consuming fish that contain omega-3 fatty acids, like mackerel, sardines, and salmon are useful for lupus patients. vitamins such as B, C, E, and A in addition to selenium, zinc, magnesium, can recover the patients' health (21).

Plant medicine: This type of treatment is important for health as; it works as immune modulation and purification of the toxins from the body, as well as it improves psychological state that enables the patients to cope with certain diseases (22).

Prevention: SLE cannot be prevented, but the increase in disease activity can be controlled (23,24).

Recommendations for improving general health to avoid flares include:

Diminishing disclosure to sunlight especially after 11 am, sleep adequate hours / night and day, consume well-balanced diet, reducing pressure and worry, and practice physical exercise frequently. Patients should recognize and report the primary warning marks of a flare such as an increase in body temperature, exhaustion, pain (headache) , and skin rashes. Observing and early reporting of these signs can control flares and decrease their intensity (25).

Nursing intervention for patients with lupus include the following;

Reduce the feeling of exhaustion, diminish the presence of scratches and lacerations, treat joint tenderness, preserve joint and muscle stability and maintain its ability, reduce occurrences of blood loss, decrease exposure to any source of contagion (26,27)

General patients and family teaching guide about disease and appropriate management include the following:

Teaching about the disease and everything concerning its medical

treatment / medications. , vitality saving and following measures and practices that keep the patient healthy such as walking, applying hot compresses to decrease pain, try to get red off tension and anxiety, avoid exposure to any source of contamination and contagious persons protective clothes with minimal exposure to the sun from 11.00 to 3.00 pm, continues medical follow up as doctor recommendations, and follow pregnancy counseling program before and during pregnancy(19).

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