Systemic lupus erythematous: sickness method, causes, symptoms, signs, and remedy...

Health & Medicine, Disease



Systemic Lupus Erythematous (SLE) or simply known as lupus is a life-threatening disease. Many might not recognize the extent to which someone with SLE is affected daily. It is essential for healthcare experts to understand the sickness method, along with the cause, symptoms, signs, and remedy of lupus. By comprehending all of this, healthcare professionals can help with reporting signs and symptoms to the patient's specialist to reach an accurate analysis. It is not just vital to comprehend lupus to reach an analysis, but to offer total care to the affected person.

Lupus is a rheumatic sickness characterized by autoantibodies that attacks healthy tissues, immune complex formation, harming various organs. The disease can have negative effects on the skin, kidneys, joints, blood cells and the brain. (Teitel, A. D., 2013). The principal cause of lupus is unknown; patients can also present with a few years of signs and symptoms (D'Cruz, DP. S. L. E 587– 590).

Patients with SLE may experience symptoms including: chest pain when taking a deep breath, hair loss, skin rash, sensitivity to sunlight, fever, general discomfort, fatigue, uneasiness among others. Four out of the first eight common symptoms must be present in order to be diagnosed with SLE (Teitel, A. D., 2013.). Lymphadenopathy is a particularly common symptom of SLE. Approximately, 23-34% of all patients report experiencing lymphadenopathy (Shrestha, D., et al., 2013). In order to determine if a patient does in fact have SLE several tests are performed to reach a definitive diagnosis. These tests include the following: antibody tests including antinuclear antibody panel, complete blood count, chest x-ray,

kidney biopsy, urinalysis, antithyroglobulin antibody, antithroid microsomal antibody, complement components, Coombs' test- direct, kidney and liver blood function tests, and rheumatoid factor.

Autoimmune diseases, such as SLE, can be detected by the use of the antinuclear antibody test. Antinuclear antibodies are present in people whose immune system is fighting his or her own immune system. This test is used to determine the "strength of the antibodies by measuring how many times the person's blood must be diluted to get a sample that is free of antibodies" (Teitel, A. D., 2013). The Antithroglobulin antibody test is completed to assist in detecting possible thyroid problems; because these particular antibodies, can lead to the obliteration of the thyroid gland (Topiwala, S., 2012). The Antithyroid microsomal antibody and complement components (C3 and C4) tests are used to diagnose autoimmune disorders. The Coombs' test is used to detect antibodies that can potentially destroy red blood cells, therefore causing anemia (Vorvick, L. J., 2012). Cryoglobulins is performed to detect cryoglobulins which are linked with disorders that affect the skin, joints, kidneys, and nervous system (Teitel, A. D., 2013. Cryoglobulins).

Erythrocyte Sedimentation Rate (ESR) is a test that is ordered to determine a "sed rate" of a person having unexplained fevers, certain types of arthritis, muscle symptoms or other vague symptoms that cannot be explained. This test is also used to determine if a disease is becoming more active or flaring up (Dugdale, D. C., 2011). Rheumatoid factor is used to assist in determining whether the patient has rheumatoid arthritis or sjogren syndrome, which

may be secondary to SLE (Starkebaum, G. A., 2013). Once the results of the test are determined the next phase is treatment. Because SLE is an autoimmune disease and the cause is unknown there is no cure. It is important to treat the symptoms; to do this a variety of medications with various side effects are necessary. The most common medications used in treatment are the steroids Plaquenil Cytoxan, Imuran, Rheumatrex, prednisone, Benlysta, CellCept and Rituxan (Lupus Health Center, 2014). Topical steroids are used to treat rashes by direct application. When concerning SLE low doses of steroid creams and tablets can be effective. Larger doses of steroids may be prescribed when internal organs are endangered.

The downfall of steroids in larger doses is that they cause side effects such as weight gain, thinning skin which can bruise easily, muscle weakness, stretch marks across the body and acne – this is known as Cushing's syndrome and weakening of the bones (Corticosteroids-Side effects, 2013). Plaquenil is a biological response modifier, antimalarial, and disease modifying rheumatic drug that is used to keep mild lupus related problems under control, as well as preventing flare ups. It is contraindicated in people with known hypersensitivity to retinal or visual field changes associated with quinoline compounds, psoriasis, porphyria, G6PD deficiency, and long term therapy in children. Plaquenil should be used cautiously in treatment of people with hepatic disease, alcoholism, use with hepatotoxic drugs, impaired renal function, porphoria, metabolic acidosis, patients with tendency to dermatitis, and pregnancy. Adverse effects include: fatigue,

vertigo, headache, mood or mental changes, anxiety, retinopathy, blurred vision, difficulty focusing, anorexia, nausea, vomiting, diarrhea, abdominal cramps, weight loss, thrombocytopenia, bleaching or loss of hair, unusual pigmentation of skin or inside of mouth, skin rash, and/or itching. It is important to administer antacids and laxative by at least four hours because drugs containing aluminum and magnesium decrease the absorption of Plaquenil (Wilson, B. A., Shannon, M. T., & Shields, K. M., 2013).

Imuran (azathioprine) is an immunosuppressant, disease-modifying rheumatic drug that is used for SLE, lupus nephritis, psoriatic arthritis, ulcerative colitis, nephrotic syndrome, and other inflammatory and immunologic diseases. Imuran is contraindicated in patients with hypersensitivity at azathioprine of mercaptopurine, have a clinically active infection, immunization of patient of close family members with live virus vaccines, anuria, pancreatitis, patients previously treated with alkylating agents, concurrent radiation therapy, development of GI toxicity to drug, pregnancy, and lactation. Adverse effects include: nausea, anorexia, esophagitis, diarrhea, bone marrow depression, thrombocytopenia, leukopenia, anemia, agranulocytosis, secondary infection, and/or alopecia. Allopurinol increases the effects and toxicity of Imuran by reducing metabolism of the active metabolite. Allopurinol should be decreased by one third or one fourth (Wilson, B. A., et al., 2013). Rheumatrex is an antineoplastic, antimetabolite, immunosuppressant disease-modifying antirheumatic drug that is used for psoriatic arthritis, SLE, and polymyositis. Rheumatrex is contraindicated in patients with hepatic and renal

insufficiency, alcohol, ultraviolet exposure to psoriatic lesions, preexisting blood dyscrasias, men and women in childbearing age, pregnancy and lactation. Side effects of Rheumatrex include: headache, drowsiness, hepatotoxicity, ulcerative stomatitis, glossitis and gingivitis (Wilson, B. A., et al., 2013).

It is important to be able to differentiate between the symptoms of the disease process and symptoms of the adverse effects. If the patient is not responding to the prescribed treatment the medications should be adjusted or discontinued all together. Many times it is difficult finding the correct medication regimen for the patient, however it is necessary. The prognosis of SLE has improved in the recent years. "Survival of SLE patients has improved in the last 60 years, from a 5-year survival approximately 50% in the 1950s to more than 95% in the 2000s" (Ugarte-Gil, M., & Alarcon, G., 2013). Older age at diagnosis, poverty higher levels of disease activity, higher levels of damage, male gender, and African-American race/ethnicity are among several factors that are associated with SLE mortality rates (Ugarte-Gil, M., & Alarcon, G., 2013).

Not only should healthcare professionals understand the signs and symptoms and treatment of SLE, but society as a whole should as well. Majority of the time it is a family member or close friend that may notice changes in a patient. We also must remember when a patient, friend, or family member states that they are in pain we must further examine the details of the pain. We are unable to feel the pain and we must not ignore

the subjective data our patients are providing because it may lead to a greater problem such as SLE.