

## SYSTEMIC LUPUS ERYTHEMATOSUS

*This information sheet is for your general information and is not a substitute for medical advice. You should contact your doctor or other healthcare provider with any questions about your health, treatment or care.*

### What is systemic lupus erythematosus?

Systemic lupus erythematosus (SLE) is a chronic inflammatory condition that can affect various organs of the body. SLE more frequently affects women than men and the diagnosis is usually made when a person is young. Although there is no cure for SLE, various treatment options are available to reduce symptoms, reverse inflammation and minimise organ impairment.

### What causes SLE?

The cause of SLE remains uncertain, although several hereditary and environmental factors may play a role. Influencing factors may be one or more of the following:

- Exposure to sun, fluorescent lights or tanning beds may worsen or even lead to the first signs and symptoms of SLE.
- Infections may start SLE or cause it to become worse (relapse).
- Stress may worsen SLE, particularly mild disease.
- Surgery may increase SLE activity.
- Pregnancy may cause a relapse or even trigger the first episode of SLE. A relapse is more likely to develop in the period shortly after delivery (postpartum period).

### What are the symptoms of SLE?

Some of the symptoms of SLE are related to inflammation of the whole body, while others are due to specific organ involvement. Examples of full-body effects are fatigue and weight loss. Organ-related symptoms include skin rash following sun exposure and easy bruising due to decreased numbers of platelets in the blood. General symptoms are discussed in further detail below.

#### Full-body symptoms

Fatigue, fever and weight loss are typically present in most patients at some stage during the course of SLE.

- Fatigue is the most common complaint and occasionally the most debilitating. It occurs in almost all patients, even when no other features of active disease are present.
- SLE may be associated with both weight loss and weight gain.
  - Unintentional weight loss is often due to a decreased appetite, side effects of medications, gastrointestinal disease or loss of excess fluid due to use of diuretic medications.
  - Weight gain in SLE is usually due to either salt and water retention associated with kidney disease, or increased appetite associated with the use of steroids.
- Fever is seen in most patients with SLE. The pattern of the fever may be helpful in determining its cause.

#### Organ-related symptoms

SLE can affect many organs of the body and can result in a variety of organ-specific symptoms:

- Joint symptoms occur in almost all patients and are often the earliest signs of SLE. The arthritis tends to move from one part of the body to another and does not usually affect both sides of the body in the same way.
- Most patients with SLE have skin abnormalities at some time. The most common is the malar (butterfly) rash, a redness over the cheeks and nose that appears after sun exposure. Some patients develop circular patches of raised, scaly skin which are more inflammatory and tend to scar. Many patients develop ulcers in the mouth, which are usually painless.
- The Raynaud phenomenon is a condition that reduces blood flow to the extremities in response to cold exposure, emotional stress, smoking cigarettes and/or caffeine. The affected fingers or toes become pale, then eventually blue and/or red.
- Photosensitivity refers to the development of a rash after exposure to UVB radiation found in sunlight or fluorescent lights. It occurs in 60 to 100% of patients with SLE.
- Changes in kidney function are common in SLE, and usually develop during the first few years of illness. Monitoring for changes in kidney function is generally recommended.

- The gastrointestinal tract can be affected by SLE, usually due to medication side effects, particularly the use of steroids and non-steroidal anti-inflammatory drugs (NSAIDs). Severe abdominal pain, nausea and vomiting can occur with SLE that affects the pancreas (pancreatitis), the lining of the abdomen (peritonitis), or the large intestine (colitis).
- A few lung (pulmonary) problems such as pleurisy (inflammation of the tissues that line the lungs and chest cavity) and shortness of breath can occur in SLE.
- There are a variety of symptoms that may appear due to involvement of the heart or blood vessels (cardiovascular), such as chest pain with exercise or due to inflammation and shortness of breath due to a heart valve disease.
- The most common symptoms related to the nervous system are difficulty in concentrating and thinking clearly. Other symptoms include anxiety, depression, confusion, memory loss, hallucinations, seizures, weakness or numbness.
- The eye is frequently affected by SLE. The most common symptom is dryness of the eyes with a feeling of grittiness.
- People with SLE frequently develop low blood counts. These changes do not cause any symptoms unless levels become extremely low.

### **Activity and severity of SLE**

To create an effective treatment routine, the activity and severity of SLE must first be determined. Disease activity refers to the degree of inflammation, while severity refers to the level of organ impairment. Disease activity is assessed using a combination of the clinical history, physical examination, organ-specific functional tests and selected tests. Most doctors use an approach that includes close monitoring and adjustment of therapy if there are signs of the condition worsening.

### **What is the treatment for SLE?**

Although there is no cure for SLE, a variety of treatment options may reduce symptoms, limit damage to vital organs and reduce the risk of recurrence. Medication commonly used in the treatment of SLE include NSAIDs, anti-malaria medication (chloroquine), steroids and immunosuppressive agents.

### **General useful information**

- *Diet and nutrition.* A balanced diet including carbohydrates, proteins and fats is recommended. The diet may be modified based on disease activity and the response to therapy.
- *Herbal supplements* are of unproven benefit and may even cause harm.
- *Exercise.* It is important to exercise, as being inactive during illness causes a rapid muscle and stamina loss.
- *Immunisations.* Influenza and pneumococcal vaccines are safe but may be less effective in preventing the flu and pneumonia in people with SLE. People whose immune systems are weakened should not receive live vaccines such as measles, mumps, rubella, polio, varicella and smallpox.
- *Medication precautions.* Some medications are known to negatively influence SLE and should be avoided when there is an acceptable alternative. These include sulphonamides, which contain antibiotics and penicillin, and oral contraceptives, which contain high doses of oestrogen.

### **References**

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