SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

23 CENTURY INTERNATIONAL LIFE SCIENCE CENTRE

WHAT IS SYSTEMIC LUPUS ERYTHEMATOSUS?

Systemic Lupus Erythematosus (SLE) is an autoimmune disorder. Instead of producing normal antibodies to protect the body from infection, antibodies released by the immune system can attack healthy tissues cells and organs.

PREVALENCE OF SLE

SLE affects over 5 million people worldwide [1], It affects more women than men. About 90% diagnosed with SLE were women, frequently starting at childbearing age.
80%of those with Systemic Lupus developed the disease between ages of 15 to 45.

CAUSES OF SLE

The exact cause of SLE is not known, but several factors have been associated with the disease include genetics, environment, sex and hormones [2].

SYMPTOMS

Symptoms of SLE can be vary greatly in severity and intensity.
Some common symptoms of SLE include:

- **Skin** - butterfly-shaped skin rash that develops on a person's face
- **Heart** - chest pains, hearts murmurs
- **Lungs** - Pleuritis, inflammation, or pneumonia
- **Kidneys** - Inflammation
- **Joints** - Painful, swollen joints
- **Central nervous system** - Headaches, dizziness, depression, memory disturbance
- **Blood** - Anemia, decreased white cells, increased risk of blood clots

TREATMENT

No cure for SLE exists. The goal of treatment is to ease symptoms. Treatment can vary depending on how severe your symptoms are and which parts of your body SLE affects.

MESENCHYMAL STEM CELLS FOR SLE

Mesenchymal stem cells (MSCs) are well known for their ability to differentiate into multiple mesenchymal lineages, to regenerate and to have anti-inflammatory properties. MSCs unique and powerful immunomodulatory and regenerative characteristics enable them to find damaged cells and inflammation in the body and begin to repair and replace those cells.

Recent studies and trials have shown significant positive results for the treatment of Lupus with MSCs.

MSCs act as immunomodulators that can suppress the activity of T-regulatory cells, which can suppress the activity of autoreactive T cells, which can play a crucial role in self-tolerance [3].

SUCCESS STORIES

SUCCESS STORY 1

A clinical study of 15 patients with persistently active Systemic lupus erythematosus (SLE) has been found that allogeneic stem cell therapy significantly reduced disease activity in Lupus patients.
The results reported the changes in the SLE disease activity index (SLEDAI), serological features (anti-nuclear antibodies and anti-double-stranded DNA (anti-dsDNA)), renal function and percentage of peripheral blood regulatory T cells. (3)

SUCCESS STORY 2

A clinical study of the efficacy and safety of mesenchymal stem cells (MSCs) by meta-analysis in the treatment of Systemic Lupus Erythematosus (SLE) showed positive results after MSCs treatment. SLE patients showed lower proteinuria, displayed lower SLEDAI and showed a lower rate of adverse events after stem cells treatment [4].

SUCCESS STORY 3

In a clinical study of 40 patients with SLE treated with umbilical cord mesenchymal stem cells (UM-MSCs) showed significant decline in disease activities, improved in renal function and serologic indices. Intravenous infusion of UC MSCs is also found to be a safe practice for treatment of patients with SLE [5].

SUCCESS STORY 4

A clinical trial of allogenic mesenchymal stem cells (MSCs) transplantation in 58 refractory SLE patients has shown significant safety and efficacy results. The results showed significant decreased in disease activity shown by SLEDAI scores and decreased in levels of proteinuria. The study also reported serum albumin and anti-double-strand DNA (dsDNA) antibody have significantly improved after MSCs transplantation. It shows that stem cell therapy may be one of the most promising medicine for the treatment of Lupus [6].

Reference
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ABOUT US: 23 CENTURY INTERNATIONAL LIFE SCIENCE CENTRE

23 Century Group is a pioneer status high-tech corporate major in cell manufacturing. Our technical counterpart, Beike Biotechnology Co. Ltd, has more than twenty years experience in the development of stem cell therapies and their associated clinical applications, holding **67 patents** in China and internationally. With advanced cell preparation expertise, 23 Century Group is currently the owner of the largest CGMP cell preparation laboratory in Malaysia. It is synchronized to more than 30 laboratories throughout China.

The group has jointly formed cooperation with more than 400 domestic and overseas research and medical institutions, and published more than 50 journals.

OUR AIM IS TO PROMOTE HEALTH BY PROVIDING HOPE TO PATIENTS WHO SUFFER FROM DISEASE WHICH ARE INCURABLE FROM MODERN MEDICINES USING CELLS AS A TREATMENT OPTION

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