More Personalized Lupus Treatment Emerges

by AMY MANLEY

Personalized Medication Options for Lupus Make Treatment More Effective

The medical condition known as lupus is a chronic autoimmune disease that affects one in every 700 people. The condition affects predominately young and middle-aged women, and finding the right treatment method can be difficult.

However, medical researchers have used DNA sequencing to identify a gene that is responsible for causing lupus in young patients, and this has enabled them to offer a new lupus treatment with more personalized treatment options.

Pinpointing the cause of lupus in an individual patient is done through the use of DNA sequencing, which allows doctors to create treatment plans for each patient for the most effective outcome. According to medical researchers at the Centre for Personalized Immunology, they gained this information by sequencing genes from a young girl who suffered from a stroke at the age of four due to her lupus.

By completing the sequencing, the researchers created an individual treatment plan that will be ongoing throughout the girl's life.

The TREX1 gene was identified by researchers as a cause of lupus in this young girl’s case. This gene was mutated, and caused the patient's cells to produce a molecule known as interferon-alpha. Drugs that target this gene are currently undergoing clinical trials for this new lupus treatment in adults.

By using target therapy options, which are created by finding the sole cause of lupus in an individual’s body, the ability to control the disease and prevent progression is more effective than ever.

According to co-director of the Centre for Personalized Immunology, Professor Carola Vinuesa, research was showing that lupus was caused by defects in only one or two genes, when, in fact, they can be present in several.

Researchers are referring to this discovery as “The New Age of Personalized Medicine” and believe it’s possible to unravel a detailed analysis of each individual patient and their genetic malformation to find the exact cause of lupus in their body.

Researchers are optimistic that this new information gained through research will offer a new approach to diagnosing the condition, and the treatment options will become significantly more effective.