How Does Lupus Affect The Brain?

by ELENA ANCIRO

Why and How Does Lupus Affect the Brain?

Your brain is your control center; a super organ so complex that it remains a mysterious frontier for scientific exploration.

It is the organ which makes us human, consisting of 100 billion nerve cells that give us awareness of ourselves and our environment, records our memories, and regulates our body processes.

Of the many tissues and organs that can be affected by lupus-induced inflammation, approximately 40 – 50% of people living with lupus experience brain involvement.

This inflammation can manifest in cognitive dysfunction, stroke, headache, seizure, and psychosis.

Cognitive Dysfunction

Cognitive dysfunction or brain fog is the loss of intellectual functions.

For lupus patients, it can occur within a range of severity, from the inability to pay attention, to having trouble problem solving or recalling information.

According to the Lupus Research Alliance, one in five people experiences cognitive dysfunction, a condition that likely occurs “because blood stops flowing smoothly to the brain as it should... this also can happen when lupus antibodies cross the blood-brain barrier, directly damaging brain cells in areas that store memories and other important information.”

It is a frustrating symptom for both the caretaker and the person experiencing it.

The good news is that there are many coping strategies and resources, including brain games for improved concentration, daily reminders set on your phone, and seeking neurological or psychological medical professional assistance.

Stroke

A stroke occurs when the flow of oxygen to your brain is blocked, which causes your brain cells to die. A stroke will induce symptoms such as tingling sensations and problems with vision, speech, and movement, including paralysis.

According to the Lupus Foundation of America, “research has shown that having lupus and undergoing treatment, can in itself, be a substantial risk factor for heart disease and stroke.”

Lupus can cause the immune system to produce an abnormal antibody called the antiphospholipid antibody, which can trigger the formation of blood clots. These blood clots can occur in the brain and cause embolic strokes.

Lupus can also induce the formation of immune deposits, which can travel from the heart to the brain (Liebman Sacks endocarditis) and restrict blood flow by causing inner blood vessel inflammation (vasculitis.) Both conditions can result in stroke.

It is important that you and your support network know the signs of stroke. A simple way to remember is to use the acronym, “F.A.S.T.”

- **F**ace – is it drooping?
- **A**rms – can you raise both?
- **S**peech – is it slurred or jumbled?
- **T**ime – to call 9-1-1 right away.

Headaches

Lupus headaches are a commonly reported symptom, but the existence of a headache-specific to lupus is widely debated within the medical community. Vasculitis could be a possible cause of headaches in people with lupus.

Seizure

The Epilepsy Foundation states that a seizure is “a sudden surge of electrical activity in the brain that usually affects how a person appears or acts for a short time.”

The risk of seizures in people with lupus increases with the occurrence of stroke, but in the vast majority, once lupus activity is under control, there is no further risk of seizures.

Psychosis

Brain inflammation or lupus cerebritis is a severe mental disorder that features defective thought processes, most frequently manifested as hallucinations or delusions.

Psychosis occurs during initial diagnosis in under 3% of patients and in 5% of patients in subsequent years.

Diagnosis

Diagnosing brain involvement is complex and challenging.

According to the Lupus Research Alliance, “a physical examination and precise questioning by a doctor, testing of the blood and spinal fluid, brain imaging, and electrical studies (EEG) may be needed.”

The possibility of experiencing brain-related symptoms can be a frightening prospect. It’s important to practice self-awareness and monitor any changes to your cognitive abilities or behavior.

Inform and educate your support network on how to identify warning signs and don’t forget that your brain should be included in your workout regime. By exercising your body and your mind, you will take a pro-active and preventative stance on your overall health.