

Lupus Causes Symptoms and Effects

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Introduction

Lupus is a medical complication characterized by inflammatory skin tissues and other body parts, usually resulting from an attack on the body tissues by the immune system. In this regard, Lupus is usually referred to as an anti-immune disease because of the manner in which the immune system turns on the body tissues of an individual and starts attacking them with the aim of eliminating them because it perceives them as foreign invaders or threats to the health and well-being of an individual (Ferretti & La Cava, 2016). A Lupus attack affects any part of the body of a human being, including both internal as well as external organs, such as the skin, the joints, the heart, the lungs, the brain, as well as the blood cells, among many others. In most cases, Lupus may characterize itself as a minor inconvenience, but in some unique cases, it exhibits itself as a significant lifelong disability.

Effects Of Lupus On The Body

Lupus affects people of all races, though it's primarily common among Africans, Native Americans, and Asians as opposed to Whites. Furthermore, the infection is usually very common among women as opposed to their male counterparts, as most health statistics provide that 9 out of every ten people who are suffering from lupus are female. The common ages within which the disease strikes its victims are the ages of 15 years through to 44 years (Chen et al., 2017). Nonetheless, this provision does not rule out elderly individuals from being affected by the disease. There are two kinds of lupus complications that an individual may suffer from. The first type is the Discoid lupus erythematosus (DLE), while the second type is the Systemic lupus erythematosus (SLE).

The DLE strain of lupus primarily affects the skin of the patient, especially when he or she is exposed to direct sunlight. However, this type of lupus does not affect the internal organs of an individual. On the contrary, it is characterized by discoid lesions on the skin, usually circular in shape, that, in most cases, end up scarring the affected persons after the lesions have healed properly (Johnson, 2014). On the other hand, the SLE strain of lupus appears to be the most serious of the two as it affects not only the skin but also other vital organs in the body. In most cases, SLE is characterized by a raised, scaly, and butterfly-shaped rash, usually found at the bridge between the nose of the affected person and his or her cheeks. If untreated, SLE also leaves a permanent scar on the affected parts.

It is noteworthy that lupus attacks also cause invisible damage to the bodies of the affected individuals, especially when the attack has affected internal body organs. In this case, the disease ends up damaging or inflaming connective tissues of the affected person along the joints, along the muscles, as well as along the membranes that surround or lie within major body organs, including the

brain, the kidneys, the livers, the lungs, as well as the heart (Gladman, 2017). For instance, health experts have confirmed that SLE is also responsible for the causation of kidney diseases among affected patients, as well as seizures, depression, confusion and possible stroke attacks in case the brain is also affected.

Similarly, systematic lupus is also synonymous with attacking blood vessels, which in turn causes sores to develop on the skins of the affected individuals. Most of these sores are usually seen around the patient's fingers and toes. Other lupus patients are affected by Raynaud's syndrome. This is a condition characterized by the shrinking of the blood vessels that are in contact with the skin, subsequently preventing them from supplying adequate blood to both the feet and the hand. Such cases are very common during the cold seasons, lasting a few minutes, but they can either be painful or painless and characterized by the turning of the colour of the feet or the hands to bluish or whitish (Merola et al., 2016). It is, therefore, advisable for lupus patients who suffer from Raynaud's syndrome to keep themselves warm during the cold seasons by wearing gloves and socks on their hands and feet, respectively, to avoid getting cold.

Causes Of Lupus

As mentioned above, lupus results from the body's anti-immunity reaction when the immune system starts fighting the body cells of an affected individual. However, it is imperative to note that there is no established cause of lupus, and on the contrary, a number of factors have been raised as being responsible for the development of lupus in an individual. However, it is believed that lupus primarily results from the combination of genetic and environmental effects on the body of an individual, whereby some of the potential triggers of the disease include exposure to sunlight, infections, and the use of certain types of medications. Some people develop lupus skin lesions when they get exposed to the sun, such as people with albinism, which is a skin condition characterized by the absence of melanin on the skin. Other people also develop complications from lupus after suffering from an infection. Some medications also trigger the development of lupus among certain patients, including medications for blood pressure, anti-seizures as well as antibiotics. Aside from these, other known causes of lupus include hormones, genetics, biomarkers, and the environment.

Hormones

Every living organism produces hormones that are used in controlling and regulating their metabolic activities, as well as the functionality and performance of certain organs and cells in the body. Research has proven that hormones play a critical role in promoting the prevalence of lupus among affected individuals, making them more prone to the disease. For instance, according to research statistics, women are more vulnerable to suffering from lupus compared to men, a fact that is largely attributable to the estrogen hormone among women. Estrogen is believed to be an anti-immune hormone, and that is the likely reason behind the high prevalence of the complication among women,

whereby most of them claim to be suffering from the adverse effects of lupus complications during their monthly menstruation periods, as well as during pregnancies. During both periods, the production of estrogen hormones among these women is usually at very high levels.

Genetics

According to clinical research studies, no specific gene or a group of genes in the human body can be associated with being a primary cause for the development of a lupus condition. Nonetheless, it is noteworthy that in the genetic analysis of lupus disease, most of those who end up suffering from the disease usually have one or more of their family members also suffering from the same complications. In some cases, parents who suffer from lupus also pass on the disease to their parents.

Bio-Markers

Biomarkers refer to the molecules responsible for reflecting a specific pathological process or biological process in an individual. It can also refer to a response by the body to a therapeutic intervention or a consequence process in the body reflecting a specific activity or event. Some of the potential biomarkers include C-reactive protein (CRP), protein in the urine, and anti-double-stranded DNA antibodies. These, too, are responsible for causing lupus complications in an individual.

Environment

The environment that an individual is exposed to also plays a critical role in determining his or her vulnerability to lupus complications. As such, it is believed that some environmental agents, such as viruses and chemicals, can trigger lupus within an individual. Some of these environmental triggers of lupus include UV rays, silica dust, sulfa drugs, penicillin and other strong antibiotics, sodium, and smoking, among other factors.

Symptoms Of Lupus

The symptoms of lupus are difficult to discern since they are different in every new case. As such, no two cases of lupus infections exercise the same type of symptoms. It is also noteworthy that the signs and symptoms of the complication may take their time to develop or appear all of sudden depending on the impunity of the affected individual. Furthermore, the effect of the lupus attack on the affected patients is not always the same across the board, as some cases are very severe while other cases are just mild. In the same regard, some of these cases appear on a temporary basis, while some patients end up experiencing these complications permanently. Most patients affected with lupus usually have episodes, also referred to as flares, which are indicative of the different signs and symptoms that the disease uses to manifest itself.

Therefore, the body system of an individual affected by the lupus attack will be the primary determinant of the types of signs and symptoms that would manifest. As such, this is the reason why the health practitioners argue that no single case of lupus is similar to the other, with each differing in its own kind. However, some of the common symptoms of lupus include fatigue, fever, dry eyes, headaches, confusion and memory loss, chest pains, kidney pains, joint-pains, stiffness and swelling of the joints, shortness of breath, skin lesions, turning of color for fingers and toes, and the development of butterfly shaped rashes on the face and cheeks. In this regard, it is advisable for an individual to seek medical advice immediately he or she realizes the presence or development of any of the aforementioned symptoms. The sooner one gets proper medication to treat the complication, the higher his or her chances are at reducing the degree of severity of the complication on their body.

Risk Factors Associated With Lupus Complications

As mentioned above, lupus is common among people of certain age and gender. In this case, some of the primary factors that may increase the risks of an individual in developing lupus include gender, age, as well as race. In gender, women are more prone to suffering from lupus complications compared to their male counterparts. In age, lupus attacks are common among people aged between 15 years and 45 years of age, although this does not rule out the possibility of others outside this age bracket from suffering from the complication. In race, lupus is more common among the Latin Americans or Hispanics, the Asian Americans, as well as the African Americans. However, it is less prevalent among the Whites.

Complications Associated With Lupus Infections

The main indication that one is suffering from lupus is the development of a swelling around the affected area or areas. As such, these inflammations end up causing a wide range of other unrelated healthcare complications to the patient, especially for his or her internal organs, such as the kidneys, lungs, heart, blood and blood vessels, as well as the brain and the nervous system. Kidneys affected by lupus infections end up reporting various damages as well as kidney failures, subsequently raising the rate of mortality associated with kidney complications resulting from lupus infections.

If a patient is affected by lupus on his or her brain and the central nervous system, he or she experiences constant headaches, behavioral changes, dizziness, vision problems and hearing complications. In addition, there are many cases whereby such complications have led to memory loss as well as the difficulties in expressing one's thoughts. When lupus affects the blood and other blood vessels of an individual, they end up causing problems of the blood including anemia, increase bleeding risks, increased blood clotting risks, as well as possible inflammation of the blood vessels, a condition referred to as vasculitis.

Lupus increases the prevalence of pleurisy, which is a condition characterized by the inflammation of

the lining of the chest cavity. As such, the patient ends up experiencing a lot of pain while breathing, in addition to other respiratory complications, such as pneumonia, and bleeding lungs. The heart also suffers from inflammation when affected by a lupus attack, causing the heart muscles, the arteries and the veins to contract. As such, this increases the risks of heart attack, as well as other cardiovascular complications associated with the disruption of the smooth flow of blood within all parts of the body. Other relate complications that arise from one suffering from lupus include cancer, bone tissue death, pregnancy complications, as well as a high risk of infection from other communicable diseases.

Diagnosis Of Lupus

It is difficult to diagnose and treat lupus infections owing to the varying nature of the signs and symptoms that different individuals report whenever they have an infection. As such, one should always look out for these signs and symptoms in order to be sure that they do not in any way develop into a full blown lupus infection. In fact, no single test can be use in diagnosing lupus, but rather a combination of blood and urine tests, couples with an examination of the signs and symptoms that are prevalent in an individual. Some of the laboratory tests that can be undertaken to test for lupus infection include complete blood count, erythrocyte sedimentation rate, urinalysis, kidney and liver assessment, as well as antinuclear antibody (ANA) tests. Aside from laboratory tests, the patients can also be tested using imaging tests such as chest X- rays and echocardiogram. A biopsy would also be instrumental in the diagnosis of the complication among the affected individuals.

Treatment Of Lupus

Lupus has no known cure, and as such, one needs to discover the presence of the disease in his or her system at the earliest possible time in order to begin taking medication immediately for controlling the condition. It is presume that effective management of the disease through proper medication can enable the individuals to live an active and healthy life. The treatment offered for this infection however varies in relation to the type of symptoms and signs that the individual has exhibited. Some of the common medications used in treating lupus infections include biologics, immunosuppressants, corticosteroids, antimalarial drugs, as well as nonsteroidal anti-inflammatory drugs (NSAIDs).

Conclusion And Recommendations

The above deliberations are a clear indication that lupus is a disease that needs immediate attention once it has been discovered to be present in an individual. Therefore, it is necessary for one to familiarize oneself with the common signs and symptoms of the disease in order to have oneself checked as soon as one develops any of these symptoms. The reason for this assertion is that

immediate medical intervention for the lupus disease helps promote healthy living among the affected persons, as opposed to the case where one seeks medical attention only when he or she is in a critically ill condition. In such a case, the patient may develop some of the permanent complications of the disease and even succumb to death due to the growing presence of the disease in their body systems, such as kidney failures or heart attacks. Therefore, caution is necessary in the management and treatment of lupus disease.

References

- Chen, Y., Sun, J., Zou, K., Yang, Y., & Liu, G. (2017). Treatment for lupus nephritis: an overview of systematic reviews and meta-analyses. *Rheumatology International*, 37(7), 1089-1099.
- Ferretti, C., & La Cava, A. (2016). Overview of the pathogenesis of systemic lupus erythematosus. In *Systemic Lupus Erythematosus* (pp. 55-62).
- Gladman, D. (2017). Overview of the clinical manifestations of systemic lupus erythematosus in adults. *UpToDate*. Available at: <http://www.uptodate.com/contents/overview-of-the-clinical-manifestations-of-systemic-lupus-erythematosus-in-adults>.
- Johnson, B. (2014). Overview of neonatal lupus. *Journal of Pediatric Health Care*, 28(4), 331-341.
- Merola, J. F., Moschella, S. L., Callen, J., & Curtis, M. R. (2016). Overview of cutaneous lupus erythematosus. *UpToDate*. *UpToDate, Waltham, MA*. (Accessed on April 23, 2018.).
- Modjaningrat, I. F., Oehadian, A., Ghozali, M., & Hamijoyo, L. (2018). Overview of Anemia among Systemic Lupus Erythematosus Patients in Reproductive Age Women based on Reticulocyte Hemoglobin Equivalent (RET-He) Level and Reticulocyte Count. *Indonesian Journal of Rheumatology*, 9(2).
- Mok, C. C., Yap, D. Y., Navarra, S. V., Liu, Z. H., Zhao, M. H., Lu, L., ... & Lague-Lizardo, L. R. (2014). Overview of lupus nephritis management guidelines and perspective from Asia. *Nephrology*, 19(1), 11-20.
- Pangestu, Y., Setiati, S., Setiyohadi, B., & Sukmana, N. (2018). Prevalence and factors associated with vitamin D deficiency in systemic lupus erythematosus patients. *Indonesian Journal of Rheumatology*, 4(1).
- Trotter, K., Clark, M. R., & Liarski, V. M. (2016). Overview of pathophysiology and treatment of human lupus nephritis. *Current opinion in rheumatology*, 28(5), 460.