Scientia Psychiatrica
Journal Homepage: www.scientiapsychiatrica.com
eISSN (Online): 2715-9736

Depression in Patients with Systemic Lupus Erythematosus

Redho Afriando[1*]

[1]Faculty of Medicine, Universitas Sriwijaya, Palembang, Indonesia

ARTICLE INFO

Keywords:
Depression
Sleep quality
Systemic lupus erythematosus

***Corresponding author:**
Redho Afriando

E-mail address:
afriando@gmail.com

The author has reviewed and approved the final version of the manuscript.

https://doi.org/10.37275/scipsy.v4i2.119

A B S T R A C T

Depression is one of the highest incidences of depression with a considerable burden of depression. Depression is found in patients with SLE. To date, there is no clear understanding of the research relationship between depression and sleep quality in patients with systemic lupus erythematosus (SLE). Thus, patients with depression who have a poor quality of life, especially in the components of self-care and discomfort conditions. There is a moderate correlation with sleep quality in SLE patients. This paper will examine the relationship between depression and patients with SLE2.

1. Introduction

Systemic lupus erythematosus (SLE) is a multisystem, immune system, connective tissue problem with mental comorbidities, of which depression and anxiety are two normal features. The predominance of depression in patients with systemic lupus erythematosus (SLE) is higher than in the general population. Conditions Increasing HRQoL is one of the significant treatments focused on SLE. Understanding the risk factors for depression and early treatment can lead to improved treatment outcomes, not only adherence to treatment but also HRQoL. Several neurotrophic factors (NFs) and vitamin D have attracted consideration as atoms reveal instruments of the neurophysiological condition of depression. In patients with depression, decreased NF levels lead to a volumetric reduction of the hippocampus and another localized forebrain. Vitamin D deficiency is seen as a condition in desperate patients, and correction of vitamin D deficiency is generally accounted for to further develop the debilitating state.[14,15] In most studies on the brain-derived neurotrophic factor (BDNF) or vitamin D for patients with depression who are not critical for comorbidity, it remains unclear whether these molecular pathological mechanisms can be applied to patients with a specific subset of the disease.[2]

2. Discussion

Patients with Systemic Lupus Erythematosus and poor sleep quality conditions had higher rates of depression than those who slept well. The mechanism underlying sleep disturbance in SLE patients is still unclear.[4] Several previous studies have shown that there is a neural mechanism that finds that sleep deprivation can disrupt the state of brain systems

involved in emotional states, such as the amygdala, and the anterior cingulate cortex, in areas where genes that work in circadian rhythms are not regulated. in quality of depression and positive depression problems. correlations with functional connectivity involving the lateral orbitofrontal cortex, dorsolateral prefrontal cortex, cingulate cortex, and precuneus-associated brain regions were identified as playing a very important role in the association of depression problems with poor sleep quality conditions, whereas the relationship between sleep quality with depression was problem-mediated. by this relationship is less significant. The strength of the correlation between depression and sleep quality varied between different depression measurement tools, with HAM-D being a high correlation and HADS-D being a low correlation, which is in agreement with Mirbagher et al. measurement tools that can contribute to the discrepancy between the results. There was another finding that depression had the highest association with sleep quality in SLE patients in Africa and the lowest correlation in Europe. Perhaps due to poor economic conditions and underdeveloped medical conditions in Africa, patients with SLE may not receive timely and effective treatment.[4]

Depression has been consistently reported to have a substantial impact on the HRQoL of SLE patients, according to this study.[9-11] It is noteworthy that depression was strongly associated with extreme pain/discomfort in this study. Given that pain and depression share the neurotransmitter pathways of norepinephrine or serotonin, pain can lead to depression and vice versa. Treatment of depression can reduce pain and further improve HRQoL in patients with SLE. BDNF is an NF that has attracted attention as a biomarker and target for the molecular treatment of depression. Serum BDNF levels have been reported to be reduced in patients with depression. Vitamin D has been shown to regulate NF and affect neuronal plasticity. Low vitamin D levels in patients with depression. Correction of vitamin D deficiency has been reported to improve depression.[15] Low serum vitamin D levels are associated with high disease activity in line with previous SLE studies.[6]

3. Conclusion

Depression in SLE patients, especially those with single/separate/isolated/grieved husband and wife status conditions, higher PGA, and extraordinary distress/distress. Patients with depression conditions have a lower quality of life, especially in the elements of self-care and stress conditions. There is a moderate relationship between sleep quality conditions in SLE patients. Patients with poor sleep quality will generally find higher levels of melancholy than those who sleep well.

4. References

1. Borenstein M, Hedges LV, Higgins JP, Rothstein HR. A basic introduction to fixed-effect and random-effects models for meta-analysis. Res Synth Methods. 2010; 1: 97–11.
2. Thompson SG, Deeks JJ, Altman DG. Measuring inconsistency in meta-analyses. BMJ. 2003; 327: 557–60
3. Egger M, Smith GD, Schneider M, Minder C Bias in meta-analysis detected by a simple, graphical test. BMJ. 1997; 315: 629–34.
4. Egger M, Funnel plots for detecting bias in meta-analysis: guidelines on choice of axis. J Clin Epidemiol. 2001; 54: 1046–105
5. Lee HY, Seo JY, Choi BY, Nam JH. Prevalence and correlates of depressive symptoms in Korean adults: results of a 2009 Korean community health survey. J Korean Med Sci 2013; 28: 128-35.
6. HC Shadish WR. Combining estimates of effect size. In: Cooper H, Hedges LV, editors. The Handbook of Research Synthesis. Russell Sage Foundation, New York. 1884; 265–6
7. DeGiorgio LA, Konstantinov KN, Lee SC, Hardin JA, Volpe BT, Diamond B. A subset of lupus anti-DNA antibodies cross-reacts with the NR2 glutamate receptor in systemic lupus erythematosus. Nat Med 2001; 7: 1189-93.

8. Sterne JAC, Egger M. Funnel plots for detecting bias in meta-analysis: guidelines on choice of axis. J Clin Epidemiol. 2001.
9. Choi ST, Kang JI, Park IH, Lee YW, Song JS, Park YB, et al. Subscale analysis of quality of life in patients with systemic lupus erythematosus: association with depression, fatigue, depression activity and damage. Clin Exp Rheumatol 2012; 30: 665-72.
10. Doria A, Rinaldi S, Ermani M, Salaffi F, Iaccarino L, Ghirardello A, et al. Health-related quality of life in Italian patients with systemic lupus erythematosus. II. Role of clinical, immunological and psychological determinants. Rheumatology (Oxford). 2004; 43: 1580-6.
11. Smolen JS, Strand V, Cardiel M, Edworthy S, Furst D, Gladman D, et al. Randomized clinical trials and longitudinal observational studies in systemic lupus erythematosus: consensus on a preliminary core set of outcome domains. J Rheumatol. 1999; 26: 504-7.
12. Brunoni AR, Lopes M, Fregni F. A systematic review and meta-analysis of clinical studies on major depression and BDNF levels: implications for the role of neuroplasticity in depression. Int J Neuropsychopharmacol. 2008; 11: 1169-80.
13. Sen S, Duman R, Sanacora G. Serum brain-derived neurotrophic factor, depression, and antidepressant medications: meta-analyses and implications. Biol Psychiatry. 2008; 64: 527-32.
14. Anglin RE, Samaan Z, Walter SD, McDonald SD. Vitamin D deficiency and depression in adults: systematic review and meta-analysis. Br J Psychiatry. 2013; 202: 100-7.
15. Mozaffari-Khosravi H, Nabizade L, Yassini-Ardakani SM, Hadinedoushan H, Barzegar K. The effect of 2 different single injections of high dose of vitamin D on improving the de- pression in depressed patients with vitamin D deficiency: a randomized clinical trial. J Clin Psychopharmacol. 2013; 33: 378-85.