

Depression, Anxiety, Anger, Fatigue and Quality of Life in Systemic Lupus Erythematosus: Relationship to the disease activity and damage

Division of Rheumatology, Department of Internal Medicine, 1Department of Psychiatry, Yonsei University College of Medicine

*Sang Tae Choi, Jee In Kang¹, Eun-Jin Kang, Sang-Won Lee, Min-Chan Park, Yong-Beom Park, Soo-Kon Lee

Purpose : Systemic lupus erythematosus (SLE) is a chronic inflammatory disease in which almost every organ may be affected. Various psychological problems are associated with systemic conditions, but the influence of SLE is still a matter of discussion. We evaluated depression, anxiety, anger, fatigue and quality of life in patients with SLE, compared to healthy controls. We also investigated the relationship between these psychological problems and disease activity and damage in patients with SLE. **Methods :** 108 patients with SLE and 52 healthy controls completed a psychological questionnaire. Psychological parameters were assessed as follows: depression, CES-D; anxiety, HADS; anger, STAXI; fatigue, POM; quality of life (QOL), FACIT. Disease activity and damage index were measured by SLEDAI and SLICC/ACR, respectively. **Results :** Patients with SLE showed higher symptoms of depression and fatigue ($p=0.008$; $p=0.022$), lower levels of physical, social and emotional QOL and performance status ($p < 0.001$; $p < 0.001$; $p=0.002$; $p < 0.001$) than normal controls. The patients with NP lupus and musculoskeletal damage showed lower levels of emotional QOL than those without. In the SLE patients, mood symptoms such as depression, anxiety and anger were correlated with each other. Fatigue and QOL had correlations with mood symptoms, respectively. Disease activity was associated with depression ($r=0.232$, $p=0.016$), and current corticosteroid dose was associated with depression and physical QOL ($r=0.261$, $p=0.006$; $r=-0.250$, $p=0.009$). In a multivariate analysis, depression was affected by anxiety, fatigue and anger. Physical QOL was affected by performance status and fatigue, and emotional QOL was affected by anxiety. Furthermore, functional QOL was affected by performance status and depression. **Conclusions :** The patients with SLE had higher levels of depression and fatigue and lower levels of QOL and performance status compared to healthy controls. In SLE patients, QOL were affected by various psychological problems. Our results suggest that physicians should keep in mind the various psychological problems in patients with SLE, although the patients have a low disease activity and damage index.

Prevalence and risk factors of osteoporosis and vertebral fractures in women with systemic lupus erythematosus-comparison with rheumatoid arthritis

Division of rheumatology, Kangnam St. Mary's hospital, The Catholic University of Korea

*In Je Kim, Kwi young Kang, Jang Uk Yoon, Ji -Hyeon Ju, Ho-Youn Kim, Sung-Hwan Park

Objective : To evaluate the prevalence and risk factors of osteoporosis and vertebral fractures in women with systemic lupus erythematosus (SLE), and compare with rheumatoid arthritis (RA) and fibromyalgia. **Methods :** We studied 340 SLE patients, 70 RA patients and 24 fibromyalgia patients over 18 years of age. Clinical data was obtained by a questionnaire on risk factor for osteoporosis and chart review. Spine X-ray and bone mineral density (BMD) measurements by dual x-ray absorptiometry were performed. In addition, biochemical markers of bone metabolism were studied in SLE patients. Vertebral fractures were defined as a reduction of 20% of the vertebral body height. **Results :** Mean disease duration and mean age of SLE patients were 8.4 years and 39.2 years respectively and accumulated damage using SLICC/ACR damage index (SDI) was 0.9. Mean disease duration and mean age of both RA and fibromyalgia were 5.3 years and 44 years. Osteoporosis and osteopenia were presented in 42 and 71% of SLE patients, respectively. SLE patients had significantly lower BMD at femoral neck compared with RA and fibromyalgia patients. In SLE patients, osteoporosis correlated with low body mass index (BMI) and menopause. The prevalence of vertebral fractures in SLE patients was 13.7% and was higher compared with RA and fibromyalgia. The most common site of vertebral fractures was the 11th thoracic spine. Vertebral fractures in SLE patients are associated with current daily dose of oral corticosteroid and menopause. In addition, we found a negative correlation between number of fracture per patient and lumbar spine and femoral neck BMD. **Conclusions :** This study showed the high prevalence of osteoporosis and vertebral fractures in SLE patients compared with RA and fibromyalgia patients. Risk factors for osteoporosis are low BMI and menopause and risk factors for vertebral fractures are current daily dose of oral corticosteroid and menopause. Therefore, we recommend that spine X-ray and BMD should be performed for prevention and treatment of osteoporosis in SLE patients.