
UMOR I DEPRESIJA U PRIMARNOM SJOGRENOVOM SINDROMU: POVEZANOST S-KONCENTRACIJOM SEROTONINA U TROMBOCITIMA I UPALNIM POKAZATELJIMA

FATIGUE AND DEPRESSION IN PRIMARY SJOGREN'S SYNDROME: RELATION WITH PLATELET SEROTONIN LEVEL AND INFLAMMATORY MARKERS

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AIM

Primary Sjogren's syndrome (pSS) is an chronic inflammatory disorder with significantly higher prevalence of depression and fatigue compared to the general population. The neurobiology of the depression includes the abnormalities in serotonin (5-HT) system. Neuroinflammation has been shown to directly affect 5-HT system. Furthermore, altered 5-HT transport has been reported as potential genetic factor contributing to platelet serotonin level (PSL) depletion in pSS patients. In the present study we aimed to investigate the effects of PSL on fatigue and depression severity in pSS patients and to examine potential association between fatigue and depression, and various inflammatory markers in pSS patients.

METHODS

At baseline, we assessed PSL, peripheral inflammatory markers (SE, CRP, C3, C4, gamma globulins, IgG, IgA, IgM) and a psychopathology with the depression severity scores of Beck Depression Inventory (BDI), Montgomery-Asberg Depression Rating Scale (MADRS) and the 17-item Hamilton Depression Rating Scale (HAM-D). We performed linear regression model to investigate the the impact of several predictor variables (BDI, EULAR Sjogren's Syndrome Disease Activity Index [ESSDAI], and fatigue) on PSL.

RESULTS

Lower PSL is significantly associated with greater depression severity (BDI) ($p \leq 0.05$) and is not associated with fatigue ($p=0.660$). Inflammatory markers SE, GG and IgG show correlation with MADRS, HAM-D and BDI. Disease activity in Sjogren's syndrome shows a weak correlation with IgG (0.28) and C3 (-0.27). Fatigue shows a weak positive correlations with GG (0.26) and IgG (0.37)

CONCLUSION

Our result support the hypothesis indicating that PSL depletion may be directly associated with depression severity in pSS patients. Fatigue is associated with disease activity and show weak correlation with IgG and C3. Association between reduced PSL and depression subtype in pSS patients is in line with hypothesis of association between chronic low-grade immunoinflammation and 5-HT system dysregulation.