

Summary

Our study was the first in the literature which focused on the VDR gene polymorphisms in pSS; however, there were no differences in the distribution of BsmI, TaqI, ApaI, and FokI genotypes and the common haplotypes between pSS patients and healthy controls. We hypothesize that these polymorphisms of the VDR gene are not associated with the development of pSS in the Hungarian population.

We observed the over-expression of miR-155 in the PBMCs of pSS patients. SOCS1 gene was also over-expressed in patients. This unanticipated phenomenon might be a laboratory characteristic of Sjögren's syndrome, and presumably a consequence of the noteworthy difference in the pSS immune system reacting with EBV.

Our results on miRNAs expression profiles indicated that in SLE patients 135, while in pSS patients 26 miRNAs showed altered expression. Interestingly, the 25 miRNAs including miR-146a, miR-16 and miR-21, which were over-expressed in pSS patients, were found to be elevated in SLE group, as well. On the contrary, we observed the down-regulation of miR-150-5p, which is a novel and unique finding in pSS. Levels of several miRNAs over-expressed in SLE, were not changed in pSS, such as miR-148a-3p, miR-152, miR-155, miR-223, miR-224, miR-326 and miR-342. Expression levels of miR-223-5p, miR-150-5p, miR-155-5p and miR-342-3p, which miRNAs are potentially linked to B cell functions, showed associations with the B cell proportions within peripheral blood mononuclear cells. The observed differences in miRNA expression profiles and the better understanding of immune regulatory mechanisms of miRNAs may help to elucidate the pathogenesis of SLE and pSS.