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AB0659 EXTREMELY LOW FREQUENCY OF CHRONIC HEPATITIS B INFECTION IN SYSTEMIC LUPUS ERYTHEMATOSUS

Keywords: Clinical trials, Systemic lupus erythematosus

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Background: There are few studies evaluating the frequency of chronic hepatitis B virus (HBV) infection in systemic lupus erythematosus (SLE) patients (1).
Objectives: Aim of this study is to determine the HBV seroprevalence in SLE patients and to compare it with normal population and patient control groups (rheumatoid arthritis and spondyloarthritis).
Methods: HBV serology tests [hepatitis B surface antigen (HBsAg), hepatitis B surface antibody (HBsAb), hepatitis B core antibody (HBcAb)] performed during the diagnosis of 278 SLE patient and the control group [consist of 125 rhomatoid arthritis (RA) and 125 spondhyloarthritis patient (SpA)] were analyzed retrospectively between 2005-2022 in two different centers. Patients with SLE responding to the 2019 ACR/EULAR criteria were included. HBV serology characteristics of SLE patients were compared with those of the normal population and control groups. The categorical data were presented as numbers (in percent). The chi-square test or Fisher's exact test was used to analyze the categorical variables. We compared 95% confidence intervals (95% CI) for the HBV infection rate of each variable; 95% CI which did not overlap were considered as statistically significant. Statistical significance was considered as p<0.05.
Results: HBsAg was positive in 2/278 (0.7%) in SLE patients, 6/125 (4.8%) in RA patients, and 9/125 (7.2%) in SpA patients. HBsAg positivity rate in SLE patients was lower than two different national normal population analysis [%4, (218/5960), %4,57, p=0,008] and RA (p=0,019) and SpA patients (P=0,003) (2,3). HBcAb positivity rate in SLE patients (%15) was significantly lower than both normal population (%30.6) and RA (%42.7) and SpA (%30.6) patients (Table 1). Analysis of SLE patients clinical outcomes showed that less oral ulceration (5/38 vs 57/210, p=0.067) and skin lesions (18/38 vs 140/208, p=0.018) occured in the HBcAb positive patients compared to negative patients. There was no relationship between other clinical findings and the HBcAb positivity. The HBcAb positive SLE patients were older than negative patients (51±10 vs 42±13, p<0.001).

Table 1. Hepatitis B seroprevalence of SLE and control groups

	SLE	RA	P_{SLE-RA}	SpA	$P_{SLE-SpA}$	Normal population (TURHEP)	$P_{SLE-normal\ population}$
HBsAg positive	2/278 (%0.7)	6/125 (%4,8)	**0,019**	9/125 (%7,2)	**0,003**	218/5960 (%4)	**0,008**
HBcAb positive	41/273 (%15)	44/103 (%42,7)	**<0,001**	37/121 (%30,6)	**<0.001**	1670/5460 (%30,6)	**<0,001**
HBsAb positive	107/278 (%38.5)	62/117 (%53)	**0.008**	51/122 (%41,8)	0,43	1746/5460 (%31,9)	**0.023**
HBsAb positive and HBcAb negative	77/273 (%28.2)	26/103 (%25,2)	0,33	25/121 (%20 ,7)	0,11	463/5460 (%8,4)	**<0,001**
HBsAb and HBcAb positive	30/273 (%11)	30/103 (%29,1)	**<0.001**	25/121 (%20 ,7)	**0,01**	1212/5460 (%22,2)	**<0,001**
HBsAb negative and HBcAb positive	11/273 (%4)	14/103 (%13,6)	**<0,001**	12/121 (%9,9)	**0,02**	251/5459 (%4,6)	0.659

Conclusion: The positivity rate of HBsAg and HBcAb was lower in SLE patients than both normal population and other inflammatory disease subgroups such as SpA or RA. Lower HBsAg and HBcAb seroprevelance in SLE patients compared to normal population and also to other inflammatory diseases (SpA and RA), maybe due to specific protective mechanisms in SLE pathogenesis (like the association of familial mediterrenian fever and pestilence). This mechanism can be explained with the high interferon levels in SLE patients. To properly understand these mechanisims we need more prospective and molecular studies.
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AB0660 PREDICTIVE PARAMETERS FOR THE DEVELOPMENT OF PERIPHERAL NEUROPATHIES IN PRIMARY SJÖGREN'S SYNDROME

Keywords: Sjögren syndrome

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Background: Sjögren's syndrome is a heterogeneous inflammatory disorder frequently involving peripheral nerves with a significant clinical and prognostic impact. The early detection of hematological and immunological parameters might improve disease control and even patients' survival.
Objectives: The objective of this study was to evaluate the predictive potential of hematological and immunological elements for the development of peripheral neuropathies (PN) in pSS patients.
Methods: In this single-centre, retrospective study, a total of 252 participants were included (131 pSS patients and 121 healthy controls). According to the neurologic examination and the result of the neuro electrophysiological examination, these patients were divided into two groups, with and without PN. Complete blood count, inflammatory and immunological parameters were determined at the initial visit. All patients underwent a periodical follow-up program when disease progression and response to therapy were monitored, including the emergence of PN.
Results: In pSS patients, cellular count, Vitamin B12 and D values were significantly decreased compared to healthy subjects ($p < 0.001$), whereas cellular ratio- NLR, PLR, immunological and inflammatory parameters were significantly increased ($p < 0.001$). In the PN patients group (41 patients 31.29%), gammaglobulins negatively correlated with vitamin B12 and total proteins ($p < 0.05$), while ESSDAI scores positively correlated with NLR and PLR ($p < 0.05$). The multivariate analysis confirmed the independent predictive character for PN emergence in pSS for NLR (CI95% 0.034 to 0.254, $p < 0.010$), gammaglobulins (CI95% -0.409 to -0.114, $p < 0.001$), vitamin B12 (CI95% -0.001 to -0.001, $p < 0.001$) and vitamin D (CI95% -0.018 to -0.006, $p < 0.001$).
Conclusion: Standard hematological and immunological parameters, widely used in assessing pSS patients, such as NLR, gammaglobulins, vitamin B12 and D, could become valid elements that might be used for the early detection of patients at risk for the development of PN. The hematological parameters related to platelets appear to be modified in patients with SS and cutaneous manifestations. However, only the neutrophil-to-lymphocyte ratio is independently associated with cutaneous involvement in these patients.
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