SKIN LESIONS AND IMMUNOLOGICAL MARKERS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) AND ANTIPHOSPHOLIPID SYNDROME (APS). PROSPECTIVE STUDY FROM JANUARY 2019 TO JANUARY 2021.

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НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ ИНСТИТУТ РЕВМАТОЛОГИИ ИМЕНИ В.А.НАСОНОВОЙ

Background

Systemic lupus erythematosus (SLE) is an autoimmune disease characterized by systemic damage of connective tissue with skin, joint, and visceral changes. Antiphospholipid syndrome (APS) is an acquired thrombophilic disease associated with the hyperproduction of autoantibodies to cell membrane phospholipids or phospholipid-binding blood proteins. The clinical manifestations of APS are recurrent thrombosis and fetal loss. In more than 40% of cases, SLE is associated with the presence of highly positive antiphospholipid antibodies (aPL), with 50-70% of patients developing APS over the next 10 years of the disease.
Both diseases have similar and different clinical manifestations of skin lesions. The variety of skin lesions in SLE and APS requires a differential diagnosis and can make it difficult to diagnose a systemic autoimmune disease in a timely manner.

Objective

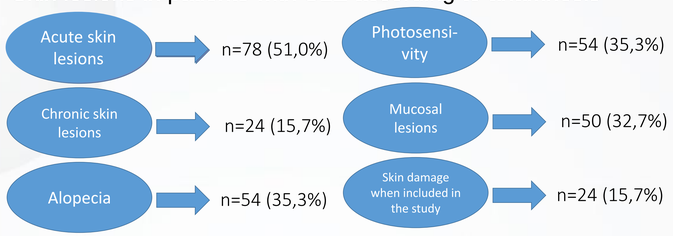
To study the frequency of skin lesions in SLE and APS and the association with immunological markers.

Materials and methods

Parameter	Parameter value
Total number of patients included in the study	n=153
Gender: Female / male	137 / 16
Age, years (Me)	36.0 [28.0; 45.0]
The duration of the disease, years (Me)	5.0 [1.2; 12.0]
Reliable diagnosis of SLE	127 (83%)/ 29 patients had secondary APS
Probable diagnosis of SLE and reliable APS	26 (17%)
Immunological study of a-dsDNA, C3 and C4 complement components, a-Sm, Ro/SS-A, La/SS-B, RNP70, IgM and IgG aCL, IgM and IgG aß2HP1	n=153
Immunological study of IgA-aCL, IgA-aß2HP1, and IgG-aß2HP1-D1 by chemiluminescence analysis (CMA)	n=19

Results

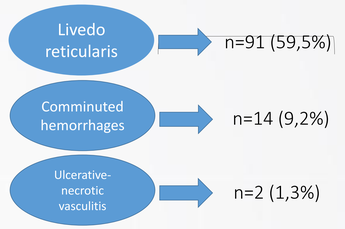
Skin lesions in patients with SLE according to anamnesis



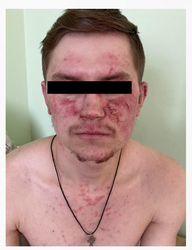
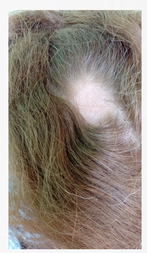
Immunological parameters	Patients with skin lesions (n=24)	Patients without skin lesions (n=129)	P
a-dsDNA	90,6 [17,2; 200,0]	27,8 [11,2; 65,3]	0,03
C3	0,67 [0,48; 0,80]	0,89 [0,77; 1,0]	<0,01
C4	0,09 [0,05; 0,15]	0,14 [0,77; 1,0]	<0,01
a-Sm	6,9 [1,9; 52,9]	0,9 [0,4; 2,5]	<0,01
Ro/SS-A	6,2 [2,3; 136,0]	4,8 [1,6; 181,7]	n/r
La/SS-B	4,9 [1,5; 18,3]	3,0 [0,8; 7,1]	n/r
RNP70	12,3 [3,6; 39,1]	4,6 [2,2; 33,2]	n/r
IgM aCL	1,4 [0,6; 3,4]	2,2 [0,8; 10,0]	n/r
IgG aCL	2,9 [1,8; 6,1]	6,7 [1,9; 76,0]	0,04
IgM aß2HP1	1,2 [0,5; 3,5]	1,5 [1,0; 5,0]	n/r
IgG aß2HP1	2,6 [1,7; 3,6]	4,1 [2,4; 55,3]	<0,01

*n/r - not reliable

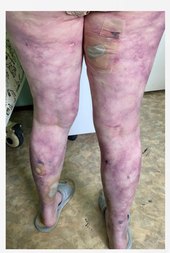
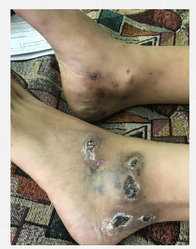
Skin lesions in patients with APS according to anamnesis



Immunological parameters	Skin lesions	P
IgM aß2HP1, IgM aCL	Livedo reticularis	<0,01
IgG aß2HP1, IgG aß2HP1-D1, IgG aCL, IgA aCL	Comminuted hemorrhages	<0,01
IgG aß2HP1, IgG aß2HP1-D1, IgG aCL	Ulcerative-necrotic vasculitis	n/r

Acute skin lesions and Alopecia

Livedo reticularis and Ulcerative-necrotic vasculitis

Conclusions

Skin lesions are the second most common signs of SLE onset, second only to arthritis. SLE and APS is always associated with immunological disorders, which are the basis for diagnosis. Assessment of skin activity and damage (in particular, according to the CLASI index) is necessary for a comprehensive analysis of the dynamics of the disease and the response to therapy. The detection of aPL is necessary not only for the purpose of predicting thrombotic catastrophes, but also for the development of skin manifestations of APS and SLE.