

**RISK FACTORS FOR THROMBOSIS AND
PRIMARY THROMBOSIS PREVENTION IN
PATIENTS WITH SYSTEMIC LUPUS
ERYTHEMATOSUS WITH OR WITHOUT
ANTIPHOSPHOLIPID ANTIBODIES**

Thesis

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Abstract

Antiphospholipid antibodies (aPL), namely anticardiolipin antibodies (aCL) and lupus anticoagulant (LAC), have been associated with an increased risk of thrombosis in systemic lupus erythematosus (SLE).

We examined additional thrombosis risk factors (aPL profile, SLE-related, and traditional risk factors) and the primary thrombosis prevention in SLE patients with and without aPL.

All SLE patients with positive aPL but without previous thrombotic manifestations who were regularly followed up at our department (n = 15) and 15 age- and sex-matched SLE patients with negative aPL were included in this study. The median followup times were 1 year. The demographic, clinical, laboratory, and treatment characteristics and the traditional thrombosis risk factors were recorded.

The results of this study showed that thrombotic manifestations were observed in 8 (53.3%) of 15 aPL-positive patients and 2 (13.3%) of 15 aPL-negative patients ($P = 0.025$).

Key words: SLE, aPL profile, Traditional risk factors for atherosclerosis, SLE-related risk factors for thrombosis.

SUMMARY

This study was performed to evaluate the incidence of thrombotic events, the risk factors for the development of thrombosis, and primary thrombosis prevention in patients with SLE.

This study involved 15 patients suffering from SLE with positive antiphospholipid antibodies with a mean age of 26.87 ± 7.605 and with mean disease duration of 3.57 ± 2.69 year, in addition to 15 patients with negative antiphospholipid antibodies with a mean age of 26.8 ± 7.302 and with mean disease duration of 4.29 ± 3.05 year. All patients were subjected to full history taking, full detailed clinical examination, laboratory assessment and assessment of disease activity according to SLEDAI score as well as damage index by SLICC.

The results of this study showed that thrombotic manifestations were observed in 8 (53.3%) of 15 aPL-positive patients and 2 (13.3%) of 15 aPL-negative patients ($P = 0.025$).

It was found that in the group with thrombosis; upon correlation with the clinical and lab parameters, the statistical significant +ve correlation was found between thrombosis and serum Creatinine ($P=0.005$), Triglycerides ($P=0.019$), Cholesterol ($P=0.036$), the daily dose of steroids in mg at the time of data collection ($P=0.007$), and elevated CRP level ($P=0.048$).

By using test of significance for comparing patients with thrombosis and patients without thrombosis regarding categorical variables (Chi square test), we had found significant statistical difference regarding positivity of antiphospholipid ($P=0.02$) and the use of statins ($P=0.018$).

And by using test of significance for comparing patients with thrombosis and patients without thrombosis regarding quantitative variables (t-test) we had found:

- Highly significant statistic difference was found regarding serum creatinine ($P=0.008$) and steroid daily dose in mg ($P=0.005$).
- Significant statistic difference was found regarding CRP ($P=0.048$), TG ($P=0.036$), cholesterol ($P=0.036$) and LDL ($P=0.041$).
- No significant statistic difference was found regarding age ($P=0.932$), disease duration ($P=0.434$), SBP ($P=0.2$), DBP ($P=0.113$), ESR ($P=0.258$), 24 hour urinary proteins ($P=0.708$), ALT ($P=0.178$), HDL ($P=0.943$), HB ($P=0.825$), WCBs ($P=0.146$), platelets ($P=0.729$), SLEDAI ($P=0.697$) or SLICC ($P=0.102$).

CONCLUSION

In conclusion, the results of our study indicate:

- The incidence of thrombosis in patients with SLE is high due to both traditional and non-traditional risk factors, and this incidence is much higher in APL positive patients than APL negative patients.
- Risk factors for thrombosis are amplified by multiple factors eg. abnormal lipid profile, high serum creatinine, markers of inflammation (CRP), and steroid therapy.
- An extensive investigation and management of traditional and SLE-related risk factors for thrombosis is important.

RECOMMENDATIONS

- Positivity of anti-C1q antibodies in HCV patients may lead to development of auto-immune extra-hepatic manifestations.
- Anti-C1q antibodies should be added to the list of auto-antibodies that form with HCV infection.
- HCV patient with positive anti-C1q antibodies should be screened for lymphoma regularly.