CLINICAL SIGNIFICANCE OF ANTI-PHOSPHOLIPID ANTIBODIES IN PATIENTS
WITH SYSTEMIC SCLEROSIS (SS)

Junichi Kaburaki¹, Masataka Kuwana², Takeshi Tojo², Yuzo Funazu¹

¹) Department of Medicine, Tokyo Electric Power Company Hospital, Tokyo, Japan. ²) Department of Medicine, Keio University, Tokyo, Japan.

The concept of anti-phospholipid antibody syndrome as a new clinical entity has been proposed by the clinical characteristics of patients with systemic lupus erythematosus (SLE)¹. Although anti-phospholipid antibodies could be detected, the clinical significance of these antibodies has not been completely analysed in patients with systemic sclerosis (SS)². In this report, the frequency of these antibodies and the clinical manifestations of antibody positive patients were studied to clarify the clinical significance of these antibodies in patients with SS.

PATIENTS AND METHODS

Seventy-one patients with SS, 54 patients with SS-overlap syndrome (SS-OL), and 130 patients with SLE were studied. IgG anti-cardiolipin (CL) and IgG anti-phosphatidylserine (PS) antibodies were screened by ELISA. Lupus anticoagulant (LAC) was screened by the cross mixing experiments measuring APTT. Biological false positive serologic tests for syphilis (BFP) were screened by the positive serologic tests for syphilis and the negative Treponema pallidum hemagglutination test. Anti-phospholipid antibodies were determined as positive when at least one out of these 4 assays showed positive.

RESULTS AND DISCUSSION

Anti-phospholipid antibodies were detected in 28 patients (39%) with SS, 35 patients (65%) with SS-OL, and 70 patients (54%) with SLE. Although 27 patients (21%) with SLE showed a high titer of anti-CL antibody, only 3 pa-
Kaburaki J et al.: Anti-phospholipid antibodies patients (4%) with SS and 5 patients (9%) with SS-OL had a high titer. Arterial or venous thrombosis and/or spontaneous abortion as important findings in anti-phospholipid antibody syndrome were found in patients with SS, SS-OL, and SLE. Thus, these patients could be regarded as having this syndrome. However, these symptoms were also found in anti-phospholipid antibody negative patients (Table 1). The statistical significance could be obtained only in patients with SLE. This difference might be due to the relatively lower titer of anti-phospholipid antibodies in patients with SS and SS-OL. Among patients who were regarded as having anti-phospholipid antibody syndrome, the clinical characteristics of 2 patients with SS-OL were compared with 20 patients with SLE. A positive BFP finding and prolonged APTT were observed only in 35% (7/20) and 71% (12/17) of patients with SLE. On the other hand, thrombocytopenia over 6 months and secondary fibrinolysis were found exclusively in patients with SS-OL. These data suggested that anti-phospholipid antibody syndrome may be divided into several subsets according to the underlying diseases.

REFERENCES

Table 1. Frequency of arterial or venous thrombosis and/or spontaneous abortion in anti-phospholipid antibody positive or negative patients.

<table>
<thead>
<tr>
<th>Disorders</th>
<th>Antibody: Positive</th>
<th>Negative</th>
<th>P</th>
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<tbody>
<tr>
<td>SS (n=71)</td>
<td>2/28 (7%)</td>
<td>1/43 (2%)</td>
<td>n.s.</td>
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<td>SS-OL (n=54)</td>
<td>4/35 (11%)</td>
<td>1/19 (5%)</td>
<td>n.s.</td>
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<tr>
<td>SLE (n=130)</td>
<td>28/70 (40%)</td>
<td>6/60 (10%)</td>
<td>&lt;0.005</td>
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