The role of antiphospholipid syndrome (APS) as a cause of chronic organ damage in patients with primary APS during a dynamic observation using SLICC/ACR Damage Index (SDI).

**Objectives:** To assess the severity of organ damage in patients with APS without SLE and with concomitant SLE, as well as the feature of irreversible damage to internal organs in patients with primary APS during a dynamic observation using SLICC/ACR Damage Index (SDI).

**Methods:** The study included 195 patients (41 men and 154 women) who were observed at the Institute of Rheumatology from 2007 to 2018 with a diagnosis of SLE and APS. The study inclusion criteria were: a follow-up period of at least 3 years with the study of serological markers of APS for previous years, the possibility of dynamic monitoring of patients, patient consent. Patients were divided into 3 groups, depending on presence of APS: group I - SLE with APS (n=99 with average age 34.6 [25-44]), group II - SLE without APS (n=45; 33.5[26-42]) and group III - 45 (average age 37.7 [27-46]) patients with primary APS (PAPS) diagnosed according to international diagnostic criteria, without signs of any disease. In all three groups organ damage was assessed using SDI. SDI 1-2 points corresponded to moderate damage, more than 2 points - to severe.

**Results:** A linear increase in irreversible organ damage was noted over 10 years of follow-up. At the time of inclusion in the study, the average SDI was significantly higher in the SLE + APS group than in the SLE group: 1.32 versus 0 when included (p < 0.0001). A direct correlation was found between the age of patients and the value of SDI both in the group I (r=0.004, r=0.284) and in the group II (p=0.04, r=0.281) when included in the study. There was a direct correlation between the activity of the disease on the SLEDAI at the end of the study and the value of SDI (p=0.03, r=0.41) in the group II. The number of patients by the 10th year of follow-up remained in group I were 44 of 99, in group II - 24 of 51 and in group III - 14 of 45. SDI was more than 2 points in 39 (89%) of 44 patients in group I, in 12 (50%) of 24 in group II and 9 (65%) of 14 in Group III (p=0.0002 OR=13; 95% CI 2.4-70). 5 years after the start of the observation average SDI in group I and II was 2.5 and 1.3 (p < 0.0001) and after 10 years - 2.8 and 1.9 (p = 0.0008) accordingly. An increase of total SDI occurred primarily due to damage to peripheral vessels (in 55% of a large number of thromboses (in 64%) as a result of a high frequency of venous thrombosis, followed by damage to the neuropsychiatric system (55%) and the cardiovascular system (40%).

**Conclusion:** APS is an independent predictor of increased SDI. The most common cause of an increase in SDI in the PAPS group was damage to peripheral vessels (62%) as a result of a high frequency of venous thrombosis, followed by damage to the neuropsychiatric system (55%) and the cardiovascular system (40%).

**Disclosure of Interests:** None declared.

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