Background Systemic Lupus Erythematosus (SLE) has a large clinical spectrum, ranging from mild to severe disease. Some studies have shown correlations between specific autoantibodies and particular clinical manifestations. The aim is to assess if there is any correlation between autoantibodies and clinical manifestations in our sample.

Methods Retrospective longitudinal study of juvenile-onset SLE patients evaluated in Pediatric Rheumatologic unit of a tertiary Hospital. All patients fulfilled both 2012 and 2019 EULAR/ACR classification criteria for SLE. Juvenile-onset was defined as age at diagnosis <18 years. Demographics and clinical characteristics were collected. Statistical analysis was performed with qui-square test by SPSS® software. Results were considered statistically significant if p<0.05.

Results 30 jSLE patients were included (90% female) with median (min-max) age of 21 (16–35) years old, with mean (SD) age of diagnosis of 15.8 ± 2.1. Mucocutaneous manifestations occurred in 25, articular involvement in 16, hematologic in 14, renal in 12, pulmonary in 1, pleuropericardial in 2 and another 2 with thrombotic events. All were positive for antinuclear antibodies: 18 with speckled pattern, 11 homogeneous and 1 nucleolar. 11 jSLE were positive for antinucleosomal autoantibodies, 10 anti-SSA antibodies, 8 anti-histone, 7 anti-ribosomal P protein antibody, 4 anti-Sm, 4 anti-RNP, 4 Lupus anticoagulant, 3 had autoantibodies against β2-glycoprotein I, 2 anti-cardiolipin and 2 anti-SSB antibodies. The presence of antinucleosomal (p=0.003) and anti-SSA (p=0.04) antibodies was significantly associated with articular involvement; anti-histone with renal manifestations (p=0.005) and lupus anticoagulant in serosal involvement (p=0.02).

Conclusions Anti-histone antibodies have been linked to lupus nephritis disease activity. The other associations are not described in the literature. Sample size is a limitation and further studies in our population are required.