

## Abstract 121

### OPTICAL COHERENCE TOMOGRAPHY ANGIOGRAPHY MICROVASCULAR ALTERATIONS IN PATIENTS WITH JUVENILE SYSTEMIC LUPUS ERYTHEMATOSUS

Oral

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#### **Purpose:**

Systemic lupus erythematosus (SLE) has been reported to cause subclinical macular microvascular alterations in adult patients, detected with optical coherence tomography angiography (OCTA). Aim of this study is to check whether vascular alterations are also present in juvenile SLE.

#### **Methods:**

Consecutive patients with juvenile SLE were enrolled at the Ca' Granda Foundation Ospedale Maggiore Policlinico, Milan, Italy, in a 1-year period. Both eyes from each patient were scanned with 3x3 mm OCTA acquisitions centered on the fovea. Superficial capillary plexus (SCP) and deep capillary plexus (DCP) angiograms were collected and analyzed using ImageJ software: perfusion density (PD) and vessel density (VD) were calculated after binarization and skeletonization, respectively. The foveal avascular zone (FAZ) was also measured. All data were compared with a group of age-matched healthy subjects using generalized estimating equation.

#### **Results:**

24 eyes of 12 patients (9 females; median age: 17,5 years; range: 12-22 years) were analyzed. Patients with jSLE had significantly lower PD ( $30.13 \pm 3.23$  %) and VD ( $10.77 \pm 1.48$  mm<sup>-1</sup>) in the SCP compared to age-matched healthy subjects ( $34.069 \pm 2.22$  %,  $p < 0.01$  and  $13.7 \pm 1$  mm<sup>-1</sup>,  $p < 0.01$ , respectively). Both parameters did not differ for DCP in the two groups. Furthermore, FAZ was the same between jSLE eyes and healthy controls.

#### **Conclusions:**

Superficial microvascular changes in LES are present also in the juvenile form of the disease. The significance and the prognostic value of these data need further longitudinal studies with larger cohorts to be confirmed.