

## Abstract 232

### ASSESSMENT OF CHOROIDAL THICKNESS IN MULTIPLE SYSTEM ATROPHY AND PARKINSON'S DISEASE.

Oral

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#### **Purpose:**

Assessment of postural changes in choroidal thickness (ChT) in patients with multiple system atrophy (MSA), Parkinson's disease (PD) and healthy controls (HC).

#### **Methods:**

20 MSA patients, 21 PD patients and 14 HC patients were examined. Institutional Review Board approval was obtained for this study. Each participant gave written, informed consent for study participation. The study adhered to the tenets of the Declaration of Helsinki. All subjects underwent a comprehensive ophthalmological examination, including corneal thickness, ChT, and axial length (AL) measurements. Heidelberg Spectralis EDI-OCT was performed in sitting and standing position to detect ChT. Statistical Analyses were performed with the SPSS package (version 25, SPSS, IBM). Wilcoxon test was used to compare postural changes within the groups.

#### **Results:**

The mean subfoveal ChT in MSAs was  $240 \pm 92 \mu\text{m}$  in sitting position and  $215 \pm 94 \mu\text{m}$  in standing position with a significant reduction ( $p = 0.008$ ). The mean subfoveal ChT in PD was  $258 \pm 79 \mu\text{m}$  sitting and  $259 \pm 76 \mu\text{m}$  standing ( $p = 0.887$ ). In HC it was  $244 \pm 36 \mu\text{m}$  in sitting position and  $256 \pm 37 \mu\text{m}$  in standing position with a significant increase ( $p = 0.007$ ).

#### **Conclusions:**

The significant postural changes of ChT can be considered additional hallmarks of autonomic dysfunction in MSA, further studies are needed to consider them as biomarkers in the differential diagnosis with PD.