providing, high-resolution, and non-invasive cross-sectional view of micro-spic, anterior and posterior ocular structures.

Objectives: To evaluate the retina and choroidal vascular structures in axSpA patients by using the advantage of OCT and to compare the changes (if any) with healthy control subjects.

Methods: In total 70 (66% male; mean age 39.7 ± 10.4 years) axSpA patients (50 radiographic- and 20 nr-axSpA) and 50 (mean age 41.2 ± 6.2 years) healthy control subjects were included in the analysis. All patients underwent a detailed ophthalmologic examination by the same ophthalmologist. All individuals with significant refractive errors (>3 diopters of spherical equivalent refraction) and intraocular pressure ≥ 21 mmHg were excluded from the analysis. Choroidal thickness (ChT), macula, and the ganglion cell complex (GCC) were measured by spectral domain optical coherence tomography (SD-OCT) by the same experienced operator.

Results: Mean ($\pm$ SD) BASDAI score was 3.6 ± 2.5 , BASFI score was 3.4 ± 2.9 , ASDAS-CRP was 2.6 ± 1.3 in axSpA patients and 14% of them has a history of AAU and 61% ever treated with TNFi agents. There was no significant difference between groups regarding refractive error ($P=0.640$), intraocular pressure ($P=0.815$) and BMI ($P=0.124$) that could affect the OCT measurements. ChT ($P<0.001$) were increased and GCC thickness ($P<0.001$) were decreased in axSpA patients however both layer thicknesses were similar between r- and nr-axSpA patients ($P=0.780$ and $P=0.677$) (Table). History of uveitis was not associated with ChT and GCC. Although GCC was further decreased in TNFi treated patients (105.8 vs 113.3) this difference did not reach significance ($P=0.058$). Education level was associated both ChT and GCC measurement. GCC thickness was also related with BMI and sex in univariate analysis. Other disease related characteristics including the ones related with disease activity were not related with posterior segment measurements.

Conclusion: Our results showed that beside anterior segment inflammation, posterior segment of the eye could be affected in both r- and nr-axSpA patients. Retina and choroidal vascular network forms the posterior segment of the eye. The thinning of GCC which form the inner neural layer of the retina is a good indicative of micro-neurotoxicity in axSpA. Elevation of the ChT may be an important indicator of inflammation.

Table. Demographic features and eye assessment results of study population

Variables	r-axSpA (n=50)	nr-axSpA (n=20)	axSpA (n=70)	Control (n=50)	P*
Age, mean (SD)	41.3 (11.1)	35.8 (7.3)	39.7 (10.4)	41.2 (6.2)	>0.05
BMI, mean (SD)	25.1 (4.3)	26.3 (4.1)	25.5 (4.2)	25.9 (1.3)	>0.05
Education years, mean (SD)	9.1 (4.0)	10.6 (3.6)	9.5 (3.9)	N/A	-
History of AAU, n (%)	6/42 (14.3)	2/16 (12.5)	8/58 (13.7)	N/A	-
TNFi usage, n (%)	32 (64)	11 (55.0)	43 (61.4)	N/A	-
Intraocular pressure, mmHg, mean (SD)	15.0 (2.3)	14.6 (1.9)	14.8 (2.2)	14.8 (2.2)	>0.05
Choroid thickness μ M, mean (SD)	333.3 (68.8)	329.8 (69.8)	332.3 (68.6)	263.3 (26.9)	<0.001
Macula thickness μ M, mean (SD)	255.9 (32.3)	256.1 (16.8)	255.9 (28.6)	262.6 (20.8)	>0.05
GCIPL μ M, mean (SD)	106.9 (8.7)	113.2 (27.2)	108.7 (16.3)	112.7 (7.3)	<0.001

* P between AxSpA and controls.

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AB0713

MAGNETIC: RESONANCE IMAGING AND ULTRASONOGRAPHIC MEASUREMENTS OF THE FEMORAL CARTILAGE THICKNESS IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Ankylosing spondylitis (AS) is a progressive inflammatory disease involving cartilaginous structures in the spine and peripheral joints.

Objectives: To examine the role of musculoskeletal ultrasound (MSUS) and magnetic resonance imaging (MRI) in assessing femoral cartilage thicknesses in patients with AS and healthy controls, and to study the correlation between femoral cartilage thicknesses measurements and disease parameters

Methods: Twenty five patients with AS (17 males and 8 females), and twenty five age, sex and BMI matched healthy individuals were included. For all patients assessment of disease activity, spinal mobility, functional limitation and radiological changes were done. Thickness of the femoral articular cartilage was measured by MSUS using a 10-18 MHz linear probe, three mid-point measurements were taken from each knee at the lateral condyle, intercondylar area, and medial condyle. Thickness of the femorotibial articular cartilage was measured by MRI using 1.5 Tesla MR machine.

Results: AS patients had thinner femoral cartilage thickness than the healthy controls at all MSUS measurement sites, with statistically significant differences at medial femoral condyle and intercondylar area in both right and left knees ($p<0.05$). According to MRI examination, AS patients had statistically significant ($p<0.05$) thinner cartilage thickness at all subdivisions of femoral and tibial condyles than the healthy controls. Femoral cartilage thickness measurements either assessed by MSUS or MRI was negatively correlated with age, age at onset of the disease, and measures of disease activity and radiological changes. Positive correlation between ultrasonographic total femoral cartilage thickness and MRI total femoral cartilage thickness was found ($r=0.49$, $p=0.02$).

Conclusion: Patients with ankylosing spondylitis seem to have thinner femoral cartilage thickness than healthy controls. Correlations of knee cartilage thickness (assessed by MSUS and MRI) with demographic data and disease parameters reflect useful value of MSUS and MRI in determining early cartilage loss in AS patients.

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AB0714

BALANCE AND FALLS IN AXIAL SPONDYLOARTHRITIS: A CROSS SECTIONAL STUDY

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Background: Spondyloarthritis (SpA) patients may suffer of balance loss predisposing them to falls.

Objectives: To study balance impairment and falls in SpA patients and its association with clinical and epidemiological variables, disease activity, functional and metrology indexes.

Methods: Cross sectional study of 55 SpA patients with axial disease. Clinical and epidemiological were collected from the charts. Balance was assessed by Berg Balance Scale(BBS). The following instruments were applied: ASDAS (Ankylosing Spondylitis Disease Activity Score)-ESR, ASDAS-CRP, BASDAI (Bath Ankylosing Spondylitis Disease Activity Index), BASFI(Bath Ankylosing Spondylitis Functional Index), BASMI(Bath Ankylosing Spondylitis Metrology Index) and ASQoL (Ankylosing spondylitis quality of life questionnaire). The number of falls in the last year was collected.

Results: In this sample, 30.9% had high risk of falls by the BBS and 25.4% recalled having at least one fall in the last years. The BBS values were lower in those with white ethnic background($p=0.01$); and smokers($p=0.03$) and with HLA-B27($p=0.03$) and correlated inversely with BASDAI($\rho=-0.28$), ASDAS-ESR($\rho=-0.32$) and ASDAS-CRP($\rho=-0.33$), BASFI($\rho=-0.71$, $p<0.0001$), BASMI($\rho=-0.80$; $p<0.0001$), ASQoL($\rho=-0.57$; $p<0.001$) and age($\rho=-0.50$; $p<0.001$). Multivariate analysis showed that BASFI and BASMI were independently associated with BBS($p=0.02$ and