Abstract SAT0392 – Table 1. The existing grading criteria of SIJ CT

mNY criteria	Lee criteria	Innsbruck criteria
0 = Normal	0 = Normal	IA = SIJ>4 mm
1 = Suspicious for erosions or sclerosis	1 = Focal erosions seen on only one of either semi-coronal or axial images	IB = SIJ<2 mm
2 = Mildly abnormal with definite erosions or sclerosis, but without alteration in the joint width	2 = ≤25% erosions*, but without alteration in the joint width	IIA = Contour irregularities
3 = Moderately abnormal with erosions or sclerosis, joint space narrowing or widening and/or partial ankylosis	3 = ≥25% erosions*, joint space alteration and/or partial ankylosis	IIB = Erosion
4 = Complete ankylosis	4 = Complete ankylosis	IIIA = Subchondral sclerosis
		IIIB = Spur formation
		IVA = Transarticular bony bridges
		IVB = Ankylosis

*Extent of erosions; (%) = number of slices with erosions/total number of slices × 100.

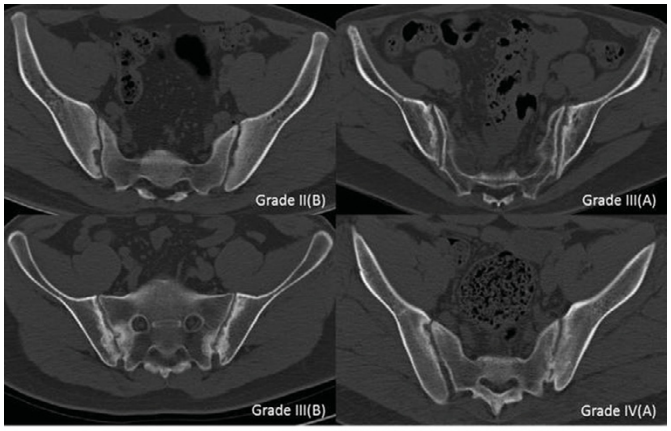

Figure 1 SIJ CT images graded 3 by mNY criteria or Lee criteria, while graded from II(B) to IV(A), respectively, by Innsbruck criteria.

Conclusions: Lee criteria has a better diagnostic specificity with a lower difficulty in the evaluation process, while Innsbruck criteria is a more detailed grading system, which has a higher consistency with the progression of sacroiliitis in AS.

References:

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4224

SAT0393 PROTEIN FINGERPRINTING SCREENING SPECIFIC PROTEINS IN SERUM OF PATIENTS WITH ANKYLOSING SPONDYLITIS

D. Ma, L. Zhang. *Rheumatology Department, Shanxi DaYi Hospital, Shanxi Academy of Medical Sciences, Taiyuan, China*

Background: Ankylosing spondylitis (AS) is a chronic inflammatory rheumatic diseases which mainly affects the spine and sacroiliac joint. So far, the pathogenesis of AS remains elusive, making it difficult to improve early diagnosis and treatment. Proteomics is a new enabling technology to screen disease associated proteins which can be used in diagnostics or therapeutics.

Objectives:
The surface-enhanced laser desorption ionization/time of flight mass spectrometry (SELDI-TOF-MS) and protein chip screening specific biomarkers in serum of patients with ankylosing spondylitis (AS) are used to diagnose and assess the disease as well as to anticipate the program of disease.

Methods:
The serum samples of 69 AS patients, 10 rheumatoid arthritis (RA) and 12 healthy individuals were detected by SELDI-TOF-MS and weak cation exchange (WCX-2) chip. Then 69 AS patients were divided into several types such as the active and inactive stage of illness, axial arthritis involved and peripheral and axial arthritis involved, the positive and negative group of HLA-B27 to study differentially expressed proteins in the pathogenesis of AS by using Biomarker Wizard and Biomarker Pattern software of SELDI to screen the specific proteins and set up the diagnostic prediction models of disease.

Results: 1.The contents of 27 proteins between AS patients and healthy groups were significantly different. Of these proteins, 14 were up-regulated and 13 were down-regulated in patients with AS.The diagnostic model made up of 8085, 2640 and 2932 could be used to diagnose AS, which the sensitivity and specificity were 94.23% and 100% respectively.

2.The contents of 30 proteins were significantly different. Of these proteins, 14 were up-regulated and 16 were down-regulated in the active stage of AS. The diagnostic model made up of 3677, 3880, 2539, 3159 and 3242 could be used to determine the disease activity of AS, which the sensitivity and specificity were 98.11% and 100% respectively.

3.The contents of 3 proteins were significantly different. The protein of M/Z 8687 was up-regulated in the axial arthritis involved of AS, while the proteins of M/Z 4700, 18538 were down-regulated. The diagnostic model made up of the three proteins could be used to predict AS whether peripheral arthritis was involved or not, which the sensitivity and specificity were 80.00% and 82.35% respectively.

4.There were no different expressed proteins in serum between the positive and negative group of HLA-B27.

5.The contents of 23 proteins were significantly different. Of these proteins, 14 were up-regulated and 9 were down-regulated in the AS patient. The diagnostic model made up of 10259, 7972, 2048, 2154 and 2954 could be used to distinguish AS and RA, which the sensitivity and specificity were 100% and 100% respectively.

Conclusions:
The serum protein fingerprinting set up by SELDI-TOF-MS could screen new biomarkers in AS, which is expected to become a screening platform in diagnose and assessment of disease.

References:

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.3342

SAT0394 THE IMPAIRMENT OF HIP JOINTS IN PATIENTS WITH EARLY AXIAL SPONDYLOARTHRITIS (CORSAR COHORT) BASED ON THE RESULTS OF THE TWO-YEAR OBSERVATION

D. Rumiantceva[1], T. Dubinina[1], O. Rumyantseva[1], A. Demina[1], E. Agafonova[1], S. Erdes[1], S. Krasnenko[1], A. Smirnov[2]. *[1]Laboratory of spondyloarthritis; [2]Laboratory of radiology, Nasonova Research Institute of Rheumatology, Moscow, Russia, Moscow, Russian Federation*

Background: Previous studies showed that the impairment of hip joints (HJ) - coxitis leads to a hip replacement and it is a frequent cause of early disability in patients (pts) with spondyloarthritis (SpA). Early detection of coxitis have a great clinical importance.

Objectives: To study the incidence and character of the impairment of HJ involvement in patients with early axial SpA (axSpA).

Methods: The study include 65 patients with axSpA (ASAS 2009) with disease duration <5 years and age at onset <45 years, mean age 28,5 (5,8) y., 32 (49,2%) males, 60 (92,2%) pts were HLAB27-positive, average disease duration was 24,1 (15,4) mo. The following evaluations were made: HJ pain (numerical rating scale – NRS - from 0 to 10), inter-malleolar distance (IMD), radiological HJ changes (BASRI-hip), ultrasound examination (US) and pts who had US evidence or/and clinical coxitis - MRI of hip joints. For 2 years pts taking NSAIDs at therapeutic doses. The dosages of NSAIDs accounted by the ASAS NSAID index.

Results: After 2 years follow-up reduce HJ functional limitations and pain in the

Table 1. Clinical characteristics of imparment HJ at baseline and after 2 years

	Baseline	After 2 years	P
Bilateral HJ pain, % pts	22 (33,8%)	17 (26,1%)	0,2
Pain in the right HJ, % pts	6 (9,2%)	5 (7,6%)	0,5
Pain in the left HJ, % pts	32 (49,2%)	8 (12,3%)	0,000003
HJ funcional limitations, % pts	13 (20,0%)	3 (4,6%)	0,007
Bilateral HJ funcional limitations, % pts	8 (12,3%)	3 (4,6%)	0,1
IMD, mean (s.d.)	110,8 (11,0)	110,8 (11,0)	1,0

Table 2. MRI symptoms of the impairment HJ and US symptoms of coxitis at baseline and after 2 years

	Baseline	After 2 years	P
MRI symptoms of the defeat HJ, % pts	22 (68,7%)	14 (43,7%)	0,08
Bilateral synovitis, % pts	17 (77,2%)	10 (71,4%)	0,5
One-side synovitis, % pts	4 (18,1%)	2 (14,2%)	0,5
Bilateral swelling of bone marrow in femoral head, % pts	1 (4,5%)	0	0,5
One-side swelling of bone marrow in femoral head, % pts	2 (9,0%)	0	0,2
Bilateral swelling of acetabular roof, % pts	2 (9,0%)	3 (21,4%)	0,3
One-side swelling of acetabular roof, % pts	0	1 (7,1%)	0,5
US symptoms* of coxitis, % pts	14 (21,5%)	11 (16,9%)	0,3
Bilateral US symptoms of coxitis, % pts	2 (14,2%)	4 (28,5%)	0,3
One-side US symptoms of coxitis, % pts	12 (85,7%)	7 (50,0%)	0,9

*The distance between the anterior joint capsule and the femoral neck, capsular-neck distance CND >7 mm.