

Conclusions: Anti-DFS70 is a valuable biomarker, with a very low prevalence in SAD, which gives it a role as a negative predictive marker of developing SAD when it is appears alone. Its detection in serum with a dense fine speckled pattern ANA (IFI) should be part of the protocol of the immunology laboratory. It is a cost-effective determination, as demonstrated in a recent study, by avoiding the costs associated with the follow-up of these patients. In our case, its finding allowed us to reassure the patient and avoid the accomplishment of further complementary tests, as well as an unnecessary monitoring.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.3410

AB1017 THE DEFEAT OF THE HIP JOINT IN ANKYLOSING SPONDYLITIS BY MAGNETIC RESONANCE IMAGING

E. Agafonova^{1,1}, T. Dubinina, A. Dyomina, O. Rumiantceva, D. Rumiantceva, M. Podryadnova, A. Starkova, S. Krasnenko, M. Urumova, S. Erdes. *Laboratory seronegative spondyloarthritis, Nasonova Research Institute of Rheumatology, Moscow, Russian Federation*

Background: According to the carried out epidemiological studies in Russia of patients with ankylosing spondylitis (AS) defeat of the hip joints was impairment in 46% of cases, but was the reason for the replacement in 7% of cases. i

Objectives: To compare the clinical manifestations of hip arthritis (coxitis) with the results of magnetic resonance imaging (MRI) of the hip joints (HJ) in patients with ankylosing spondylitis (AS).

Methods: Examined 117 patients (mean age 31.7±12.7 y meeting modified N-Y criteria), with complaints of pain in the hip joints. The average age of onset of disease was 26.3±20.3 years, HLA-B27 identified in 93% of patients. The median duration of AS – 57 [2–384] months. BASDAI 5.7±3.1. Diagnosis of hip septic arthritis were made based on clinical signs - the presence of pain in hips and/or restriction of movements in HJ at the time of patient admission to the clinic. In addition to clinical and radiographic examination all patients were performed MRI modes T1 and STIR.

Results: The Median duration of clinical manifestations of coxitis by the time of the study was 60 months. [25%; 75%], evaluation of pain in HJ for numeric rating scaler (NRS) – 4 [2; 8]. According to MRI identified the following inflammatory changes (IC): synovitis-71 (83%) patients, bone marrow edema (BME)- 44 (31.6%) patients (BME acetabulum 36%, BME heads 63%), a combination of synovitis and BME were 7 patients (9%). Depending on radiological stage (estimated by BASRI hip), patients were divided into two groups (table 1).

Results:

Table 1

Parameters	Group (1)	Group (2)	P
	BASRI hip 0-I (n=48)	BASRI hip II-IV (n=60)	
Gender (w/m), n	20/28	33/36	0,04*
AS duration, mo, Me [25%, 75%]	43 [19;80]	102 [24;120]	0,006*
BASDAI, Me [25%, 75%]	4,1 [2,6; 5,5]	5,6 [4,2; 6,7]	0,003*
BASFI, Me [25%, 75%]	2,8 [2,0; 3,8]	3,3 [2,0; 5,4]	0,2*
HLA-B27, n (%)	96 (91%)	84 (91%)	0,7*
ASDAS (CRP) Me [25%, 75%]	2,8 [2,0; 3,8]	3,5 [2,6; 3,8]	0,002*
ESR, mm/h, Me [25%, 75%]	10 [5; 25]	25 [8; 35]	0,001*
CRP, mg/mL, Me [25%, 75%]	10,5 [3,8; 28,5]	23,0 [4,9; 43,5]	0,06*
NRS, Me [25%, 75%]	5 [3;6]	6 [4;7]	0,01*
MRI Synovitis n (%)	44 (92%)	27 (45%)	0,003*
Osteitis n (%)	6 (12,5%)	38 (64%)	0,0001*

Conclusions: MRI allows to clarify the cause of the pain and limitations of movement in HJ with AS, determine the patient has inflammatory changes, including in the absence of radiographic changes in these joints. Patients with severe radiological change (BASRI II-IV), have a greater duration of the disease, severe functional abnormalities in the BASFI index. With increasing radiological stage (BASRI hip II-IV) increased the detection rate of osteitis by MRI. Further research to clarify the relationship of clinical manifestations of coxitis (pain level) from MRI data.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4985

AB1018 DETECTION OF ANTI-DFS70 ANTIBODIES BY INDIRECT IMMUNOFLOUORESCENCE (IIF) ON NOVEL HEP-2/DFS70-KO SUBSTRATE FOR DISCRIMINATING ANTINUCLEAR ANTIBODIES (ANA) – POSITIVE HEALTHY INDIVIDUALS (HI) AND PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

E. Aleksandrova, Z. Verizhnikova, A. Novikov, T. Panafidina, T. Popkova. V.A. *Nasonova Research Institute of Rheumatology, Moscow, Russian Federation*

Background: Autoantibodies against intracellular antigens are a serological hallmark of ANA-associated systemic autoimmune rheumatic diseases (AARD) such as SLE. IIF on HEP-2 cells for ANA remains the “gold standard” but it has very low positive predictive value. Up to 20% of serum samples from HI have been reported to have a positive ANA IIF test, the majority of them due to the presence of anti-dense fine speckled 70 (anti-DFS70) antibodies. Monospecific

anti-DFS70 antibodies represent a biomarker that can be used to discriminate AARD patients (pts) from HI in ANA IIF positive subjects. Recognition of the DFS70 ANA IIF pattern can be challenging. The DFS-KO Hep-2 cells inhibit anti-DFS70 antibodies reactions, providing clear differentiation of the DFS pattern from classical ANA patterns.

Objectives: To evaluate the utility of a novel HEP-2/DFS70-KO IIF substrate for the detection of anti-DFS70 antibodies in HI and SLE pts.

Methods: We studied 45 HI (36 F/9 M; age 50.4 [24.0–72.0] years, median [interquartile range 25–75%]) and 12 pts with SLE (ACR criteria, 1997) (10 F/2M, age 38.9 [17.0–65.0] years; disease duration 100.3 [4.0–432.0] months; SLEDAI 2K score 11.7 [2–30]; SLICC damage index score 1.28 [0–4]). Serum samples were tested for classical ANA and anti-DFS70 antibodies by IIF technique with a mixture of standard HEP-2 cells and DFS70-KO HEP-2 cells (“Trinity Biotech”, Bray, Ireland) as a substrate. Fluorescence titers $\geq 1:160$ were considered as positive for ANA patterns.

Results: ANA were present in 7/45 (15.6%) of HI and in 12/12 (100%) of SLE pts. All SLE pts and 3/45 (6.7%) of HI showed classic ANA patterns (homogeneous, speckled, and mixed) in the absence of DFS70 pattern. 4/45 (8.9%) of HI had classic ANA negative/anti-DFS70 antibodies positive IIF results. Isolated anti-DFS70 antibodies were found in 57% of ANA IIF positive HI. Among HI classic ANA and anti-DFS70 antibodies were detected in the low- to medium-titer range (1:160–1:320). The frequency of anti-DFS70 antibodies did not correlated with age.

Conclusions: The detection of isolated anti-DFS70 antibodies may be regarded as an exclusion criterion for the diagnosis of SLE. The testing for anti-DFS70 antibodies in a single step by HEP-2/DFS70-KO IIF method should be included into a modified ANA diagnostic algorithm. Additional investigations are required to evaluate the clinical relevance of anti-DFS70 autoantibodies.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4008

AB1019 ASSOCIATION OF INFLAMMATORY DISEASES – A CURRENT TOPIC FOR THE PRACTITIONER

A. Cardoneanu^{1,2}, A. Burlui^{1,2}, C. Cijevschi Prelipcean³, E. Rezus^{1,2}.
¹Rheumatology, University of Medicine and Pharmacy “Gr.T.Popa”;

²Rheumatology Clinic, Rehabilitation Hospital; ³Gastroenterology, University of Medicine and Pharmacy “Gr.T.Popa”, Iasi, Romania

Background: Autoimmune, infectious, traumatic or neoplastic inflammation represents a warning for the practitioner. Numerous clinical specialties face daily with the presence of inflammation. The efforts of medical staff aim to establish the pathogenesis, the expansion and to find the most effective ways of treatment.

Objectives: Our study objective is to highlight the correlations between Spondylarthropathies (SpA) and intestinal manifestations, the link between the antigen HLA B27 and joint and intestinal inflammatory changes and also the relationship between the presence of sacroiliitis and bowel disorders.

Methods: The study included 42 patients (28 men, 14 women). Of the 42 patients, 31 were diagnosed with ankylosing spondylitis (AS) (according to modified New York criteria), 8 with psoriatic arthritis (AS) (using CASPAR diagnosis criteria) and 3 patients had had reactive arthritis (ReA) (according to ASAS criteria). All subjects enrolled in the study were screened for the presence of the antigen HLA-B27. Sacroiliitis was highlighted through pelvis X-ray centered on the SI joints. All patients diagnosed with AS presented radiological sacroiliitis, only 5 cases in the group of PsA and 1 patient diagnosed with ReA. To investigate the presence of intestinal inflammation, a colonoscopy with biopsy was performed to all subjects included in the study. Among patients with AS, 5 of them had inflammatory changes suggestive of Crohn's disease (CD) and 2 for ulcerative colitis (UC). Subclinical intestinal inflammation was evidenced in 15 cases: 12 of SA group and 3 of PsA group. We also highlighted 7 cases of irritable bowel syndrome: 1 patient with PsA and 6 patients with SA.

Results: After the statistical analysis of the collected data, the following statistically significant correlations were found ($p < 0.05$): radiological sacroiliitis correlated with AS and PsA; the antigen HLA-B27 is in close relation with all 3 forms of spondylarthritis; subclinical intestinal inflammation was positively correlated with AS and PsA. No associations were found between the presence of intestinal inflammation and sacroiliitis.

Conclusions: This study points the link between intestinal and joint inflammation, primarily due to a common pathogenic mechanisms. A careful monitoring and a close collaboration between gastroenterologists and rheumatologists contributes to an optimal management of these patients.

References:

- [1] Baeten D, de Keyser F, Mielants H, Veys EM. Ankylosing spondylitis and bowel disease. *Best Pract Res Clin Rheumatol* Sep 2002;16(4):537–549.
- [2] Salmi M, Jalakanen S. Human leukocyte subpopulations from inflamed gut bind to joint vasculature using distinct sets of adhesion molecules. *J Immunol* 2001;166:4650–4657.
- [3] May E, Marker-Hermann E, Wittig BM, Zeitz M, Meyer zum Buschenfelde KH, Duchmann R. Identical T-cell expansions in the colon mucosa and the synovium of a patient with enterogenic spondyloarthropathy. *Gastroenterology* 2000;119:1745–1755.
- [4] Peeters H, vanderCruyssen B, vander Cruyssen B, Mielants H, de Vlam K, Vermeire S, et al. Clinical and genetic factors associated with sacroiliitis in Crohn's disease. *J Gastroenterol Hepatol* Jan 2008;23(1):132–137.