

Table 1. Results of ocular Doppler ultrasound over right (RT) and left (LT) sided arteries

	RT sided arteries				LT sided arteries			
	Range	Mean	S.D	P-value	Range	Mean	S.D	P-value
OA-PSV	P 6.7-57	27.5	13.5	0.001	P 7.7- 65	26.37	12.26	0.000
	C 34-40	36.9	2.04		C 32-43.8	38.73	3.17	
OA-EDV	P 0.0-16.3	6.9	4.06	0.000	P 0.4-22.4	6.69	4.17	0.002
	C 9-12.3	10.6	1.33		C 7.6-12.3	10.36	1.52	
OA-RI	P 0.63-1	0.76	0.08	0.020	P 0.62-0.95	0.75	0.08	0.123
	C 0.67-0.79	0.72	0.72		C 0.67-0.78	0.73	0.03	
CRA-PSV	P 6.5-37.4	13.2023	6.53	0.288	P 4.3-37.1	12.61	7.68	0.949
	C 9.4-14.9	11.8467	1.52		C 8.5-14.9	12.51	1.91	
CRA-EDV	P 1.6-11.8	4.4297	2.13	0.200	P 1.6-25.8	4.84	4.95	0.466
	C 2.9-14.1	5.5347	3.57		C 2.6-5.9	4.13	0.913	
CRA-RI	P 0.45-0.79	0.6590	0.07	0.917	P 0.27-0.80	0.66	0.096	0.883
	C 0.61-0.72	0.6573	0.03		C 0.61-0.71	0.67	0.037	
PCA-PSV	P 6-45.7	13.82	8.35	0.352	P 6.1-21.6	13.4	4.22	0.872
	C 9.9-17.3	13.53	2.02		C 10-15.4	13.5	1.57	
PCA-EDV	P 2.2-11.4	4.96	2.67	0.408	P 1.9-7.32	4.7	1.65	0.386
	C 3.5-6.1	5.16	0.99		C 3.2-6.1	5.04	0.96	
PCA-RI	P 0.49-0.76	0.63	0.06	0.409	P 0.53-0.68	0.87	1.16	0.435
	C 0.6-0.68	0.63	0.02		C 0.59-0.69	0.63	0.029	

C = Control, LT = Left, P = Patients, RT = Right, S.D = Standard Deviation.

Conclusions: Behçet's disease patients with ocular involvement have lower CRA, PCA and OA blood flow velocities than healthy control. CDU is helpful in early diagnosis of ocular Behçet's disease activity as it is a widely used, easy-to-perform and accurate method.

References:

- [1] Kaçmaz O., Kempen J.H., Newcomb C., Gangaputra S., Daniel E., et al.(2008): The Systemic Immunosuppressive Therapy for Eye Diseases: Cohort Study Group. *Am J Ophthalmol*; 146(6): 828-836.
- [2] Nagaoka T. (2006): Physiological mechanism for the regulation of ocular circulation: *Nippon Ganka Gakkai Zasshi*. 110 (11): 872-8.
- [3] The International Study Group for Behçet's disease (1990): Criteria for diagnosis of Behçet's disease. *Lancet*; 335:1078-1080.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4113

FRI0648 CONCORDANCE BETWEEN THE TUBERCULIN SKIN TEST AND INTERFERON GAMMA RELEASE ASSAY FOR DIAGNOSING LATENT TUBERCULOSIS INFECTION IN PATIENTS WITH CHRONIC INFLAMMATORY ARTHRITIS

I. Aktas¹, F. Unlu Ozkan¹, T. Nazligül¹, H. Kuzu Okur². ¹Department of Physical Medicine and Rehabilitation; ²Department of Chest Disease, Fatih Sultan Mehmet Education and Research Hospital, Istanbul, Turkey

Background: Biologic therapies have led to a dramatic change in the management of rheumatologic diseases. Although biologic agents provide profound clinical benefits, various adverse events are associated with their use particularly an increased risk of the reactivation of latent tuberculosis. Therefore, screening for latent tuberculosis infection (LTBI) is imperative before initiating biologic agents¹. Although tuberculin skin test (TST) is the most common test for detecting LTBI, Bacillus Calmette-Guérin (BCG) vaccination and non-tuberculosis Mycobacterium infections, can lead to false positive TST results. Interferon-gamma release assay (IGRA) measures the immune response to tuberculosis specific antigens that do not cross react with BCG, and therefore, do not cause false positive reactions in BCG recipients. Its positiveness indicates the presence of tuberculosis infection either latent or active².

Objectives: We aimed to prevent the unnecessary anti-tuberculosis prophylaxis in patients whom biologic therapy is planned by evaluating the concordance between the TST and IGRA.

Methods: Patients who have been receiving biologic therapy due to chronic inflammatory arthritis were enrolled in this study. Demographic and clinical data, TST and IGRA results were recorded. The agreement between IGRA and TST results was evaluated by Kappa coefficient.

Results: A total of 35 patients were included; 15 (42.8%) were male and mean age was 43.74±12.72 years. Of the 22 TST positive patients, 13 (37.1%) were IGRA negative. Of the 13 TST negative patients, 3 (8.6%) were IGRA positive. Nine (25.7%) patients were positive for either of the two tests and 10 (28.6%) patients were negative for both tests. There was statistically significant discordance between two tests (p:0.021; p<0.05) (Table 1). While positive rate of TST was 62.9%, positive rate of IGRA was 34.3% and Kappa consistency coefficient between two tests was 15.4% (p:0.283; p>0.05).

Table 1. Agreement between IGRA and TST results

IGRA	TST		Total n (%)	p
	Negative n (%)	Positive n (%)		
Negative	10 (28.6)	13 (37.1)	23 (65.7)	0.021
Positive	3 (8.6)	9 (25.7)	12 (34.3)	
Total	13 (37.1)	22 (62.9)		

Conclusions: It is very common in rheumatology practice to administer anti-tuberculosis prophylaxis according to the TST. IGRA may reduce the number of

patients in whom tuberculostatics are prescribed, especially in BCG recipients in endemic populations, resulting in a benefit of avoiding possible side effects. Furthermore, IGRA is also important for detecting the cases of LTBI that would be missed by TST. Confirmation in larger studies is necessary.

References:

- [1] Costantino F, de Carvalho Bittencourt M, Rat AC, et al. Screening for latent tuberculosis infection in patients with chronic inflammatory arthritis: discrepancies between tuberculin skin test and interferon-γ release assay results. *J Rheumatol*. 2013 Dec;40(12):1986-93.
- [2] Ruan Q, Zhang S, Ai J, et al. Screening of latent tuberculosis infection by interferon-γ release assays in rheumatic patients: a systemic review and meta-analysis. *Clin Rheumatol*. 2016 Feb;35(2):417-25.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5712

FRI0649 STANDARDIZED PROCEDURES FOR ULTRASOUND IMAGING IN PAEDIATRIC RHEUMATOLOGY: PROGRESS OF A EULAR TASK FORCE

I. Janta¹, P. Collado Ramos², J. Vojinovic³, E. Naredo⁴, L. Carmona⁵.

¹Rheumatology, Hospital General Universitario Gregorio Marañón;

²Rheumatology, Rheum-Pediatric Unit, Hospital Universitario Severo Ochoa,

Madrid, Spain; ³Pediatric Rheumatology, Clinical Center, Faculty of Medicine,

University of Nis, Nis, Serbia; ⁴Rheumatology, Joint and Bone Research Unit,

Hospital Universitario Fundación Jiménez Díaz and Autónoma University;

⁵Instituto de Salud Musculoesquelética, Madrid, Spain

Background: Musculoskeletal ultrasound (MSUS) is a useful imaging technique in paediatric rheumatic diseases (PRD). US has several advantages over other imaging techniques: it is non-invasive, radiation free, rapid, highly accepted by the patients and does not require sedation for scanning in younger children. However, MSUS examination is incriminated to be an operator dependent technique. Moreover, the variability of normal sonoanatomy in children, due to ossification, makes the acquisition and interpretation of MSUS images difficult. The variability in background and experience of ultrasonographers in different countries requires an international multidisciplinary effort for an optimal standardization of MSUS performance in PRD.

Objectives: To perform a systematic literature review on guidelines for MSUS for children published by international societies and articles on how to perform MSUS scanning in children. This represents the first step for an EULAR taskforce, which objective is to develop EULAR Standardized Procedures for Ultrasound Imaging in Pediatric Rheumatology through a consensus process among rheumatologists, paediatric rheumatologists, and radiologists highly experienced in the performance, teaching and research in paediatric MSUS in rheumatologic disease.

Methods: The objective was reformulated according to the PICO-adapted approach, as follows: body parts, ultrasound, and scanning procedures. For each component several synonyms were used. Search limits were applied for animal studies and age. The literature search was performed in Medline and Embase from databases inception to 1st June 2016. References identified were imported into a bibliographic manager and duplicates were removed. To identify eligible studies the remaining articles were assessed by title and abstract. Only articles in English were retained. From the selected studies, data about the examined area, patient position, probe placement, scanning method, landmarks and pathologies using a predefined data collection form.

Results: The literature search resulted in 6059 articles, of which 4856 were captured in Medline and 1203 in Embase. Figure 1 shows the the study flow-chart for article selection. After removing duplicates and scanning titles and abstracts, 295 articles remained for detailed review. After full-text review, 107 articles were excluded. The main reason for article exclusion after full-text review was the lack of standardized examination. Of the remaining articles, 2 described shoulder structures, 14 elbow structures, 5 wrist structures, 9 hand structures, 25 hip

Figure 1. Flow-chart of the article selection process.

