FRI0681   CLINICAL VALIDATION STUDIES OF THE 2012 CLASSIFICATION CRITERIA FOR EARLY RHEUMATOID ARTHRITIS (ERA) IN A DOMESTIC MULTI-CENTER COHORT

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Background: Recently, a new classification criteria for early rheumatoid arthritis (ERA) have been developed.

Objectives: To evaluate the value of 2012 classification criteria for early rheumatoid arthritis (ERA), 2010 ACR/EULAR classification criteria, and 1987 ACR classification criteria in the diagnosis of early RA.

Methods: Early arthritis patients with age more than 16 years, disease duration no more than 1 year, Cat least one joint swelling and tenderness were enrolled in a multicenter, open, cross-sectional study cohort. The patients were diagnosed as RA or other none RA disease by 2 trained experienced rheumatologists. Detailed recorded the clinical and laboratory parameters include disease duration, morning stiffness duration, RF, anti-CCP, ESR, CRP etc.The sensitivity and specificity of three RA classification criteria were compared by McNemar test, The areas under the ROC curve (AUC) of each RA classification criteria were analyzed using MedCalc software.

Results: A total of 310 patients were randomly enrolled in this study, including 182 ERA and 128 non-RA. The sensitivity (88.5%) of ERA criteria were much higher than that of 1987 ACR criteria (45.6%, χ^2=75.013, P<0.0125), and not significantly different with the 2010 ACR/EULAR criteria (91.8%, χ^2=1.042, P>0.05). The specificity of ERA criteria (91.4%) were similar to those of 2010 ACR/EULAR criteria (87.5%, χ^2=1.8, P>0.05) and 1987 ACR criteria (96.1%, χ^2=3.1, P>0.05). The AUC of ERA criteria was 0.962 (95% CI: 0.934, 0.980), which was slightly better than that of the 2010 ACR/EULAR criteria [0.959 (95% CI: 0.931, 0.978), Z=0.380, P=0.7038], and much higher than that of the 1987 ACR criteria [0.885 (95% CI: 0.845, 0.919), Z=4.517, P<0.0001].

Table1.   Demographic characteristics of 310 early arthritis

Groups	Cases	Age(year) $\bar{\chi}\pm s$	Gender Female	Gender %	Disease duration (months) $\bar{\chi}\pm s$	SJC $\bar{\chi}\pm s$	TJC $\bar{\chi}\pm s$	Mouning stiffness ≥ 30min cases	Mouning stiffness ≥ 30min %
ERA	182	48.2±14.0	140	76.9	6.7±3.9	8.6±7.4	11.4±7.7	136	74.7
Non-RA	128	42.8±16.2	49	38.3	4.3±4.1	2.0±4.1	3.1±5.5	17	13.3
P value		0.002	0.000		0.000	0.000	0.000	0.000	

Groups	Cases	ESR(mm/h) $\bar{\chi}\pm s$	CRP(mg/L) $\bar{\chi}\pm s$	IgM-RF(+) 例	IgM-RF(+) %	抗CCP(+) 例	抗CCP(+) %	HAQ M	HAQ Q1-Q3
ERA	182	39.7±25.5	22.0±28.2	138	75.8	131	72.0	0.7	0.3-1.2
Non-RA	128	32.3±23.8	28.5±39.7	8	6.3	2	1.6	0.4	0.2-0.8
P value		0.011	0.099	0.000		0.000		0.001	

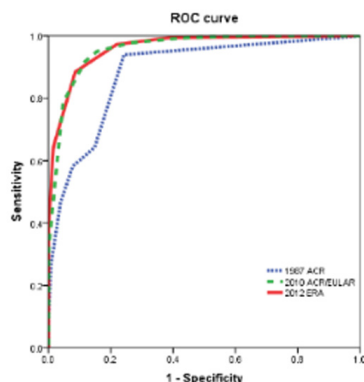SJC: Swollen joint counts ; TJC: Tender joint counts

Fig.1 Comparison of three classification criteria of rheumatoid arthritis

Conclusions: Overall evaluation, the diagnostic value of ERA criteria is better than 1987 ACR and 2010 ACR/EULAR criteria in early rheumatoid arthritis. Compared to 2010 ACR/EULAR classification criteria, ERA criteria is obviously more simple and practical.

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FRI0682   FOLLOW-UP OF TREATMENT RESPONSE WITH DYNAMIC DOPPLER ULTRASOUND IN RAYNAUD'SPHENOMENON

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Background: This study aims to investigate the role of flow parameters obtained by dynamic Doppler ultrasound in the objective follow-up of treatment response in Raynaud's phenomenon (RP) cases.

Methods: The study included newly diagnosed 33 patients with primary RP (PRP), 31 patients with secondary RP (SRP), and 26 healthy controls. The control group was evaluated with Doppler once, while the patients before treatment and on the third month of thet reatment. Baseline and post-cold provocation diameter (BD, CPD, mm) andflowvolume (BFV, CPFV, mL/min); post-coldprovocationflowstarting time (FST, min), and flowv olume normalizing time (FVNT, min) were recorded. Statistical analysis: for disturubution of thes ex of the groups: chi-square test, for analysing age distrubution among the groups One-way ANNOVA; for analysing the pre and post treatment doppler results: Wilcoxon test and fo rcomparison of the PRP and SRP post treatment values to control group; Krusal Wallis test were used. A p value less than 0,05 was considered statistically significant.

Results: Before-after treatment, there was no significant improvement in the BD in both PRP and SRP groups (0.79±0.17–0.82±0.19 vs. 0.66±0.13–0.68±0.14 PRP vs. SRP, respectively), while FST did not significantly improve in the PRP group (1.15±2.27–0.61±1.41 vs 3.13±4.81–1.58±2.36) (p>0.05). A significant improvement was observed in baseline flow volüme (3.08±2,96 vs 3.91±3.39 (p: 0,002),flow volume normalization time (7.24±7.60 vs 3.84±3.39) (p: 0,0001), after cold provocation flow volume (1.18±1,26 vs 2.17±2.16) (p: 0,0001), after cold provocated diameter (0.63±0.15 vs 0.70±0.16) (p: 0,005) in PRP group after treatment.

In SRP group, only baselined iameter changes were not influenced by the treatment, all other post treatmen tparameters were impoved in all SRP cases including baseline flow volume (2.14±1.94 vs 2.80±2.15) (p:0,009), after cold provocation diameter (0.56±0.15 vs 0.63±0.13) (p: 0.004), after cold provocation flow volume (1.07±1.40 vs 1.46±1.67) (p: 0,004), flow starting time (3.13±4.81 vs 1.58±2.36) (p: 0,021) and flow volume normalisation time (9.58±8.49 vs 4.32±3.56) (p: 0,0001).

There was an improvement in parameters after the treatment in both RP groups comparing by the control groups (p<0.01).

Conclusions: Doppler ultrasound is an objective, cost-effective, safe (does not include radiation), and easy-to-use method in thefollow-up of RP patients on macrovascular level with or without cold provocation before and after treatment.

Acknowledgements:

Epidemiology, risk factors for disease or disease progression

FRI0683   CAUSES OF DEATH IN 350 PATIENTS WITH SYSTEMIC AUTOIMMUNE RHEUMATIC DISEASES (SARD)

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Background: The major SARD have an increased mortality compared to the general population. It is well known that the main causes of death in Systemic Lupus Erythematosus (SLE) are infections (INF), cardiovascular events (CV), neoplasia