Objectives: To investigate the correlation of serum COMP levels with the articular cartilage damage based on sonographic knee cartilage thickness (KCT) and disease characteristics in RA.

Methods: A total of 61 RA patients and 27 healthy controls were recruited in this study. Serum samples were obtained from all subjects to determine the COMP levels. All subjects had bilateral ultrasound scan of their knees performed by a single radiologist; who was blinded to the details of the subjects. The KCT was based on the mean of measurements at 3 sites; the medial condyle, lateral condyle and intercondylar notch (Figure 1). Besides, the RA patients were assessed for their disease activity based on DAS 28.

Results: Serum COMP concentrations were significantly elevated in the RA patients compared to the controls ($p=0.001$). The serum COMP levels had an inverse relationship with bilateral KCT in RA subjects and the healthy controls. However, the association was statistically insignificant for bilateral knees in the control arm. COMP correlated significantly with disease activity based on DAS 28 ($r=0.299, p=0.010$), disease duration ($r=0.439, p<0.05$) and mean left KCT ($r=-0.285, p=0.014$) in RA (Table 1). Erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) which are the traditional markers of inflammation; demonstrated a significant positive correlation with the DAS 28 scores ($r=0.372, p=0.003$ for ESR; $r=0.305, p=0.017$ for CRP) comparable to the serum COMP. However, neither ESR nor CRP had a significant association with the KCT, as opposed to the serum COMP.

Table 1. Correlation of Serum COMP levels with Clinical Parameters in RA

Parameter	r	p value
Age	0.214	0.094
BMI	0.122	0.259
DAS 28	0.299	0.010
ESR	0.065	0.311
CRP	0.027	0.418
Disease duration	0.439	<0.05
Mean Right KCT	-0.177	0.088
Mean Left KCT	-0.285	0.014

KCT: knee cartilage thickness.

LC: Lateral Condyle, MC: Medial Condyle, IC: Intercondylar notch

Figure 1: Sites of sonographic knee cartilage thickness measurement

Conclusions: The serum COMP is a promising biomarker in RA which reflects disease activity and damage to the articular cartilage. Serum COMP appeared superior to the traditional markers in RA i.e ESR and CRP in predicting sonographic KCT.

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AB0276 EVALUATION OF ADHERENCE TO DRUG TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: the medication adherence is very vital issue nowadays, especially in RA patients.

Objectives: to measure the frequency of the adherence in RA patients, and evaluate the common factors influencing RA patients adherence to drug treatment aiming at improving disease outcome.

Methods: a Prospective cohort study of 100 patients with RA under treat-

ment, fulfilled the American College of Rheumatology/European League Against Rheumatism (ACR/ EULAR) (1) criteria. All patients subjected to Full history taking and clinical examination, (DAS 28 ESR), Health Assessment Questionnaire (HAQ) score, Visual Analogue Scale (VAS) scale, CBC, ESR, CRP titer, RF titer, ACPA titer and Power Doppler U/S for both hands, patients also respond to specific questionnaire containing questions about sociodemographic data, medication, health care system and Compliance Questionnaire of Rheumatology (CQR).

Results: The baseline adherence rate (CQR≥80) was 37%. The nonadherent RA patients to drug treatment were older, living outside Cairo, with low educational level and smokers, they also had higher DAS28ESR score, HAQscore, ESR, CRP titer and more frequent active synovitis in Doppler ultrasound. The cost of medication (61%), non-availability of medication in pharmacy (58%), forgetting the medication (36%), patients' lack of belief in the benefit of treatment (38%), inadequate follow up or discharge planning (23%) and polypharmacy (medication load) (20%) were the most common factors in nonadherent patients table (3). After 9 months of the follow up and trying to correct the causes of nonadherence, the adherence rate increased to (68.75%). Also there was improvement in disease activity, improvement in functional state and improvement in the quality of life.

Conclusions: Low adherence rate was associated with higher disease activity, functional disability. Patient education, financial support, good physician patient relationship, simplification of the prescription, facilitation their communication, using MSUS were found to improve the patient adherence and improve the disease outcome.

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AB0277 PATIENT REPORTED OUTCOMES EXPLAIN THE LACK OF AGREEMENT BETWEEN PHYSICIAN AND PATIENT PERCEIVED REMISSION IN EARLY RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) patients increasingly reach a state of absence of disease activity, or remission. However, the proportion of patients classified as in remission varies substantially between definitions and are often determined by disease activity score (DAS). But, the importance of patients' perspective is increasingly recognized, which often result in discordance between patients and physician assessment.

Objectives: To determine how often patients and physicians agree on a state of remission according to different definitions, as well as the difference in patient reported and clinical outcomes between patients in and not in self-perceived remission.

Methods: In 84 consecutive early RA patients, Boolean remission, EULAR

Table 1

Physician	Remission according to physician								
	PhR	NPhR	T						
PatR	41 (61)	4 (23)	45 (54)						
NPatR	26 (39)	13 (77)	39 (46)						
T	67 (80)	17 (20)	84						
Boolean	Remission			No remission					
	PhR	NPhR	T	PhR	NPhR	T			
PatR	20 (87)	0 (0)	20 (87)	21 (48)	4 (24)	25 (41)			
NPatR	3 (13)	0 (0)	3 (13)	23 (52)	13 (77)	36 (59)			
T	23 (100)	0 (0)	23	44 (72)	17 (28)	61			
EULAR response	Good			Moderate			None		
	PhR	NPhR	T	PhR	NPhR	T	PhR	NPhR	T
PatR	39 (65)	3 (60)	42 (65)	1 (20)	1 (14)	2 (17)	1 (50)	0 (0)	1 (14)
NPatR	21 (35)	2 (40)	23 (35)	4 (80)	6 (86)	10 (83)	1 (50)	5 (100)	6 (86)
T	60 (92)	5 (8)	65	5 (42)	7 (58)	12	2 (29)	5 (71)	7
ACR	ACR 70			ACR 50 (not 70)			non (not 50)		
	PhR	NPhR	T	PhR	NPhR	T	PhR	NPhR	T
PatR	20 (87)	2 (100)	22 (88)	5 (56)	1 (100)	6 (60)	16 (46)	1 (7)	17 (35)
NPatR	3 (13)	0 (0)	3 (12)	4 (44)	0 (0)	4 (40)	19 (54)	13 (93)	32 (68)
T	23 (92)	2 (8)	25	9 (90)	1 (10)	10	35 (71)	14 (29)	49

Values are expressed as number (%). PhR = physician perceived remission, NPhR = no physician perceived remission, PatR = patient perceived remission, NPatR = no patient perceived remission, T = total.