differences were found. A moderate correlation was found between the number of red blood cells and the concentration of IL-8 (r = -0.3), IL-10 (r = -0.4), TNF-α (r = -0.3). The relationship between the concentration of hemoglobin and IL-6 (r = -0.6), IL-10 (r = -0.4), TNF-α (r = -0.3) was revealed.

**Conclusion:** In RA patients, IDA, ACD, as well as their combination, may occur. It is very important to clarify the genesis of anemia. ACD should be isolated separately because it has a complex pathogenesis, one of the important components of which are cytokines and their effect on erythropoiesis. The increased concentration of IL-6 in the group of patients with ACD, as well as the presence of a correlation between IL-6, red blood cells and hemoglobin, indicate the importance of this cytokine in the development of anemia. An increase in the concentration of ferritin and CRP also reflects the inflammatory genesis of anemia in patients with this anemia. The presence of a correlation between IL-10, TNF-α and hemoglobin indices suggests their influence on the development of anemia.

**Disclosure of Interests:** None declared

**DOI:** 10.1136/annrheumdis-2020-eular.1264

**SAT0090**

**EFFECTS OF ADHERENCE TO MEDITERRANEAN DIET ON RHEUMATOID ARTHRITIS IMPACT OF DISEASE (RAID) SCORE**

F. Ingegnoli1,2, I. Scotti1, T. Schioppo1,2, T. Ubiali1, G. Marano2,3, P. Boracchi2,3, O. De Lucia1, A.Murgo1, R. Caporali1,2, G. Pini Hospital, Milan, Italy; Università degli Studi di Milano, Milan, Italy; Lab of Medical Statistics, Epidemiology and Biometry GA Maccacaro, Milan, Italy

**Background:** Mediterranean diet (MD) is a well-balanced, nutritionally adequate and potentially anti-inflammatory diet that encompasses all food groups. Presently, there are conflicting data about the benefits of MD in rheumatoid arthritis (RA). Not enough evidence support a role of MD in the prevention and treatment of RA, and a modest impact of MD on laboratory parameters has been described. Greater effect on subjective aspects of the disease such as joint pain, morning stiffness, and fatigue was reported.

**Objectives:** To investigate whether the adherence to MD affects RA perception as measured by Rheumatoid Arthritis Impact of Disease (RAID) score.

**Methods:** Consecutive patients <65 years with RA attending our outpatient clinic were enrolled in this cross-sectional study. For each patient we collected: 1) RAID that consists of 7 single-item domains (pain, functional disability, fatigue, sleep, physical well-being, emotional well-being and coping), each rated by patients on an 11-point numerical rating scale from 0 (best) to 10 (worst) [1], and 2) MD score, a self-reported questionnaire that evaluates the adherence to MD through the consumption of 11 food groups, ranging from 0 (no adherence) to 55 (high adherence) [2]. Univariate analysis was performed using MD score as independent variable. Moreover, to evaluate the adjusted relationship between each item of RAID and MD score, a multiple regression model was used.

**Results:** 205 RA patients were enrolled: median age at visit 53 (q1-q3: 44-59) years, female 80.5 %, median BMI and RAID score were 35 (q1-q3: 32-39) and 2.42 (q1-q3: 0.63-4.51) respectively. RAID total score had a statistically significant negative relationship with MD score (regression coefficient -0.08; p-value=0.016). Concerning the single RAID items, a statistically significant negative association was found for pain (regression coefficient -0.13; p-value=0.001), sleep (regression coefficient -0.08; p-value=0.041), physical well-being (regression coefficient -0.08; p-value=0.027) and coping (regression coefficient -0.11; p-value=0.008).

**Multiple regression analysis** to evaluate the relationship between significant RAID items and MD score did not show any statistical significance as all items are strongly related to each other.

**Conclusion:** To our knowledge, this is the first study addressing the relationship between the adherence to MD and the perception of RA impact. A better MD adherence was associated with lower self-reported composite total RAID score as well as lower pain, functional disability, sleep, physical well-being and coping. The effect of MD adherence on overall RAID is relevant but, at the same time, a prominent effect of one single item on the others could not be documented. This study confirmed the importance of non-pharmacological interventions, such as diet, in RA management.

**References:**


**Disclosure of Interests:** Francesca Ingegnoli: None declared, Isabella Scotti: None declared, Tommaso Schioppo: None declared, Tania Ubiali: None declared, Giuseppe Marano: None declared, Patrizia Boracchi: None declared, Orazio De Lucia: None declared, Antonella Murgo: None declared, Roberto Caporali Consultant of: AbbVie, Gilead Sciences, Inc.; Lilly, Merck Sharp & Dohme; Cellgene; Bristol-Myers Squibb; Pfizer; UCB, Speakers bureau: AbbVie; Bristol-Myers Squibb; Cellgene; Lilly; Gilead Sciences, Inc; MSD; Pfizer; Roche; UCB

**DOI:** 10.1136/annrheumdis-2020-eular.2338