Objectives: The aim of this study was to estimate the prevalence of vitamin D deficiency in patients with rheumatoid arthritis as compared to healthy controls and to analyse the association between levels of vitamin D and CRP (C-reactive protein)/ACPA (anti citrullinated protein antibodies) positivity.

Methods: Serum 25(OH)D levels were measured in 115 RA patients and 104 age- and gender-matched healthy controls using the chemiluminescent immunoassay method (CLIA).

CRP (mg/dl) was measured by the nephelometric method and ACPA antibodies were evaluated using enzymatic linked immuno-assay (ELISA).

Results: There was no statistically significant difference between levels of 25 (OH)D in RA (25.08±9.22 ng/ml) and healthy controls (15.62±5.34 ng/ml).

The vitamin D deficiency (<10 ng/ml) was found in 10% of RA patients, while 60% were insufficient (<20 ng/ml).

Low 25-OHD levels were negatively associated with CRP (23 ng/ml vs 29 ng/ml; $p=0.023$) and ACPA positivity (23 ng/ml vs 28 ng/ml; $p=0.03$).

Conclusions: The 25(OH) D levels are inversely related to CRP and ACPA values in Algerian RA patients.

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AB0118

ORAL CONTRACEPTIVES AND THE RISK OF DEVELOPING RHEUMATOID ARTHRITIS: RESULTS FROM THE MALAYSIAN EPIDEMIOLOGICAL INVESTIGATION OF RHEUMATOID ARTHRITIS CASE-CONTROL STUDY

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Background: Hormonal and reproductive factors are implicated in the etiology of rheumatoid arthritis (RA). The association between oral contraceptive (OC) use and the risk of RA has been reported, but the findings are inconsistent across different populations.

Objectives: We investigated the association between OC use and risk of RA stratified by anti-citrullinated peptide antibody (ACPA) status in the Malaysian female population.

Methods: Data from the Malaysian Epidemiological Investigation of rheumatoid Arthritis (MyEIRA) population-based case control study involving 902 female early RA and 906 age and residential area-matched female controls were analysed. OC use data was assessed through a questionnaire. Never users of OC were compared with ever users of OC to estimate the risk of developing ACPA-positive and ACPA negative RA. The odds ratio (OR) with 95% confidence interval (CI) was calculated.

Results: In this study, a total of 28.4% (n=254) RA cases and 34.2% (n=310) controls had reported as ever OC users. Compared with never users, ever OC users had a decreased risk of developing RA in the Malaysian population particularly in ACPA-negative RA (OR 0.68, 95% CI 0.51–0.90, $p<0.001$). No significant

association was observed between ever OC users and ACPA-positive RA (OR 0.80, 95% CI 0.64–1.01). Further stratification analysis by duration of OC use (less than or more than 7 years versus never OC use) demonstrated significant decreased risk of developing ACPA-positive RA (OR 0.66, 95% CI 0.51–0.86, $p<0.01$) and ACPA-negative RA (OR 0.57, 95% CI 0.41–0.80, $p<0.001$), respectively.

Conclusions: Oral contraceptives decreased the risk of RA, particularly ACPA-negative RA in the Malaysian population. A long duration of OC use was however decreased the risk in both ACPA-positive and ACPA-negative RA subsets.

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AB0119

RHEUMATOID ARTHRITIS (RA)-ASSOCIATED AUTOANTIBODIES ARE PRESENT IN THE PERIODONTAL EXUDATE OF PATIENTS WITH AND WITHOUT RA

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Background: Seropositivity for anti-citrullinated protein antibodies (ACPA) and rheumatoid factor (RF) is a hallmark of RA and can be present years before clinical disease onset. Environmental factors, including smoking and chronic inflamed mucosal tissues of the lungs, gastro-intestinal tract or oral cavity (i.e., the periodontium) are suggested to contribute to initiation of these autoantibodies. While it is known that the inflamed periodontium contains citrullinated proteins and peptides, only Harvey et al. (2013) showed that IgG ACPA is indeed present in periodontal exudate (n=9).

Objectives: As the IgA isotype is specific for mucosal immunity, we assessed in patients with and without RA whether IgA RF and IgA ACPA are present gingivocrevicular fluid (GCF), i.e., the periodontal inflammatory exudate.

Methods: RA patients fulfilling the ACR/EULAR 2010 classification criteria were recruited at the Rheumatology department of the Dr. Sardjito General Hospital, Yogyakarta, Indonesia. Patients without RA (non-RA) were recruited from the Oral and Maxillofacial Surgery department of the same hospital. In both groups, patients with diabetes or cardiovascular disease were excluded. Periodontitis was defined as periodontal inflamed surface area (PISA) >130 mm² (Leira et al. 2017). RF and ACPA were determined by ELISA in serum (IgM RF, IgA RF, IgG ACPA, IgA ACPA) and GCF (IgA RF, IgA ACPA). Total IgG and IgA were determined in GCF. IgA ACPA seropositivity and IgA RF- and IgA ACPA positivity in GCF were defined as >mean +2 SD of healthy controls (non-RA patients, never smokers, no periodontitis, n=88).

Abstract AB0119 – Figure 1. Non-RA patients (n=151)