*Altered lipid profile was defined as TC $\geq$ 200 mg/dL, HDL-C $<$ 50 mg/dL, TG $\geq$ 150 mg/dL, LDL-C $\geq$ 100 mg/dL. SD=Standard deviation; T2DM=Type 2 diabetes mellitus; bDMARDs=biological agents; DAS 28-CRP=Disease Activity Score 28 joints C-reactive protein.

Conclusions: In our cohort of Mexican-mestizo RA patients there is a high prevalence of cardiometabolic risk factors. An important amount of these were discovered in patients without previous diagnosis at their first visit to a cardio-rheuma clinic.

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AB1318 PRACTICAL ASPECTS OF BIOLOGICAL-DRUG MONITORING IN RHEUMATOID ARTHRITIS AND SPONDYLOARTHRITIS

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Objectives: To prepare recommendations on practical aspects of biological-drug monitoring that may be useful for rheumatologist

Methods: A systematic review of the literature was carried out to determine in which patients and in what clinical circumstances may be most beneficial to monitor the levels of biological drugs and their antibodies in patients suffering Rheumatoid Arthritis (RA) and/or Spondyloarthritis (SpA). With the results of the review, a group of experts produced a series of clinical questions, to be answered through the available scientific evidence, and then, subsequently, to make the recommendations and clinical algorithms for instructing the decision-making process.

Results: Results from the systematic review showed that the biological-drug monitoring might be especially useful in two clinical situations; in case of a treatment failure (primary or secondary) and in sustained remission (see figure 1). It was also reviewed which laboratory technique might be better and the optimal time for blood withdrawal. Specific recommendations are given on the interpretation of drug levels and on factors that should be taken into account are given (i.e. body mass index and concomitant medication).

Abstract AB1318 – Figure 1

Conclusions: Informed algorithms have been developed regarding the optimal time for requesting drug levels and anti-drug antibodies in patients with RA and

SpA. This recommendations may help in the decision-making process and could be useful as part of future guidelines in the field.

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AB1319 DRUG RESISTANCE IN BACTERIA ISOLATED FROM URINE OF RHEUMATOID ARTHRITIS PATIENTS AND INDUCTION OF RESISTANCE BY CHLOROQUINE

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Background: Rheumatoid arthritis (RA) was connected with bacterial infections.¹ Usage of antibiotics generate resistance in pathogens as well as natural microflora.² Some anti-rheumatic drug (chloroquine) probably is associated with selection of quinolone resistant bacteria.³

Objectives: To isolate bacteria from urine of rheumatoid arthritis patients, determine antibiotic resistance profiles for isolated bacteria and induce ciprofloxacin resistance by exposition to chloroquine.

Methods: Two consecutive samples of morning urine was obtained from 26 RA patients without urinary infection tract symptoms. Patients were treatment-naïve or treated with different anti-rheumatic drugs. Bacteriuria was determinate on UTI chromogenic medium (HIMEDIA). Resistance against 38 commonly used drugs (MAST) was determined according EUCAST standards. For OXA-48 carbapenemase detection, a temocillin disc was used. Isolated bacterial strains were cultivated on LB broth supplemented with chloroquine (625 and 1875 µg/ml) for 2 weeks, than incubated on medium with ciprofloxacin (32, 15, 8, 4, 2, 1, 0.5 µg/ml). Growth was measured with spectrophotometer (λ=600 nm) against non-inoculated medium.

Results: Bacteria were cultivated from almost 88% of patients, but only in 26% of them in titer higher than 10⁵ cfu/ml of urine. Bacteriuria were more often in treated individuals. Isolated bacteria belonged to *Escherichia coli*, *Klebsiella pneumoniae*, *Enterobacter cloacae*, *Proteus mirabilis*, *Morganella morganii*, *Staphylococcus* sp. Among tested bacteria 23% were determined as MDRs and one strain were XDR. Screening test detecting OXA-48 revealed that 35% of strains probably possess this resistance mechanism.

Selected 10 ciprofloxacin sensitive strains (*E. coli*, *P. mirabilis*, *E. cloacae*, *M. morganii*) were exposed to increasing concentration of chloroquine. After 2 weeks of passing, 80% of bacteria become resistant to antibiotic (with ciprofloxacin MIC up to 8 µg/ml).

Conclusions: Asymptomatic bacteriuria is general phenomenon in RA patients. This research showed that many of Polish RA patients may be carriers of drug resistant bacteria, including MDR. This phenomenon may be connected with poor comply of antibiotic policy by patients as well as health service in Poland. Exposition on chloroquine induce bacterial resistance against ciprofloxacin. In RA treatment procedure, a risk of induction of quinolone resistance in bacterial flora should be considered.

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