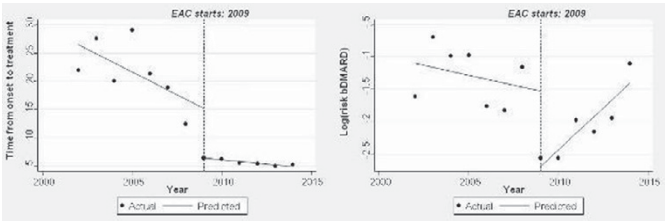
intervention periods, a significant change in slope was observed for both lag time (coefficient -8.85 [95% CI -17.25, -0.44], p=0.04) and risk of treatment with biologics (coefficient -1.17 [95% CI -2.09, -0.24], p=0.01). As expected in more recent years - according to a T2T approach - a monotonous positive trend in percentage of patients treated with biologics is also observed in EAC (coefficient 0.31 [95% CI 0.05, 0.58]).



Conclusions: The implementation of an EAC that integrates care and applies tight control and standard of care, leads to early diagnosis and treatment and may lower the need – overtime - of second-line biologic drugs, with a significant impact both on individuals and health care systems.
Disclosure of Interest: None declared
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AB0228 IMMUNOLOGICAL APPROACH TO THE DIAGNOSIS OF LESIONS OF THE NERVOUS SYSTEM IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Although S100 proteins represent 40% of the neutrophil cytoplasmic proteins, their physiological and pathological functions are still unclear. S100 protein concentrations are dramatically enhanced in synovial fluid and synovium of patients suffering from rheumatoid arthritis (RA). Their expression seems to correlate with disease activity and joint damage [1].
Objectives: Improvement of immunological detection of neurological involvement in RA by means of polyacrylamide magnetic beads with immobilized S- 100 protein.
Methods: The research was carried out in agreement with the principles of the World Medical Association Declaration of Helsinki. The informed consent had been signed by all involved persons, another obligate requirement was age 18 years or more. The patients were from the rheumatologic wards in Volgograd Municipal Hospital No. 25 and Volzhsky Municipal Hospital No. 1. Diagnosis of RA was established by ACR-EULAR criteria (2010), RA activity was evaluated using DAS28. Serum anti-S-100 protein antibodies were measured by ELISA, with S-100 protein immobilized on polyacrylamide magnetic beads as an antigen. The antibody concentrations were expressed as optical density units (ODU) and were considered positive if the cutoff value ($M+2\sigma$ of the reference group, 0.050 ODU) was exceeded. The results were expressed as mean$\pm\sigma$, differences were considered significant when $p<0.05$. Pearson correlation coefficient (r) was also used.
Results: 40 healthy persons (29 mans and 11 women), and 95 female patients with RA and the neurological signs, appeared during active phase of the disease, were recruited for this study. Mean age of the healthy controls was 36±7 years, and for the RA group it was equal to 55±11 years. Mean RA duration was 4.2±2.9 years. 13 patients had low, 52 – moderate, and 8 – high disease activity. The most common types of neurological involvement were mononeuropathy (n=29), polyneuropathy (n=65), radiculopathy (n=80); cervicocranialgias (n=51), and trigeminal neuralgias (n=14). The symptoms of central nervous system damage (TIA, seizures, cerebellar ataxia, dysarthria) were found in 21 patients. In RA group, anti-S-100 protein antibodies were detected in 11 (32.4%) cases, with mean concentration 0.078±0.028 ODU. The patients with different neurological signs had mean anti-S-100 protein antibody concentration 0.138±0.046 ODU, the subgroup without any neurological signs had 0.060±0.024 ODU (p=0.022). In all cases analyzed index correlated with the degree of activity of the pathological process. High levels of antibodies to S-100 protein in RA associated with central nervous system (CNS) and peripheral nervous system (PNS).
Conclusions: We found an association between neurological involvement in RA and elevation of anti-S-100 protein antibody concentrations. These findings give us an opportunity to improve the diagnosis of minor neurological damage in RA and thus to make more precise adjustment of the treatment.
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AB0229 DOES EXPRESSION LEVEL OF VIP AND ITS RECEPTORS CORRELATED WITH DISEASE SEVERITY IN EARLY ARTHRITIS?

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Background: Rheumatoid Arthritis (RA) is a heterogeneous disease, not only in the course but also in the response to treatment (1). So, a major challenge is the classification of patients according to the disease severity/mildness to apply customized therapeutic strategies. Low vasoactive intestinal peptide (VIP) serum levels are associated to a worse clinical course in Early Arthritis (EA) (2) and the expression of its receptor VPAC1 is associated with disease activity (3).
Objectives: To identify in an Early Arthritis cohort associations between clinical parameters of severity and serum VIP levels or expression of their receptors VPAC1 and VPAC2.
Methods: We studied 212 patients from the PEARL (Princesa Early Arthritis Registry Longitudinal) study. Follow-up includes five visits (0, 6, 12, 24 and 60 months) in which we collect demographic, clinical, laboratory, therapeutic and radiological data, as well as biological samples. Since there is not a global disease severity variable for RA, we stratified severity as follows: A) remission after two years of follow-up defined as SDAI <3.3 (4). B) Global Disease Assessment by Physician >75th percentile of the population (severe disease) or >25th percentile (mild disease). C) Median value in our population of the Δ erosion score (SvdH method assessed in hands) after two years of follow-up. VIP levels were determined by enzyme immunoassay and mRNA expression levels of VIP receptors in PBMCs by real-time PCR. To analyze the association between severity/mildness and the expression of VIP/VPAC we use several parametric and non-parametric hypothesis testing (t-test, ANOVA and Kruskal-Wallis) using Stata 12 for Windows (StataCorp PL, College Station, TX, USA).
Results: We observed a trend towards higher baseline VIP serum levels in patients who reached remission in terms of SDAI (p=0.1169). Patients no achieving remission showed lower VPAC1 expression (p=0.0494). Severe patients defined by GDAPh displayed a clear trend to lower VIP levels (p=0.081). Those patients also exhibited significant lower VPAC1 expression levels (p=0.0276). Concerning bone erosion score, we did not observe a significant association with VIP levels; interestingly we found that those patients classified as “severe” by erosion score displayed lower VPAC1 expression levels (p=0.0722) and higher levels of VPAC2 (p=0.0253).
Conclusions: VIP serum levels and VPAC1 and 2 receptors expression are associated with a more severe phenotype in EA patients stratified by SDAI, GDAPh and bone erosion.
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AB0230 POLYMORPHISM OF CYTOTOXIC T-LYMPHOCYTE 4 +49A/G IS ASSOCIATED WITH EARLY PRESCRIBING THE BIOLOGICAL THERAPY IN ACTIVE EARLY RHEUMATOID ARTHRITIS PATIENTS (ERA PTS) REFRACTORY TO THE PREVIOUS SUBCUTANEOUS METHOTREXATE (SC MTX) MONOTHERAPY

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Background: Monotherapy with MTX is the first step of RA therapy as recommended by EULAR. According to “Treat to Target” (T2T) strategy principles insufficient response to MTX requires prompt switch to a combination therapy with biological agents.
Objectives: To find out whether polymorphisms of immune response genes are associated with early prescribing the biological treatment in eRA pts, refractory to the SC MTX monotherapy.
Methods: By January 2014, 210 pts with RA were included in the REMARCA study (Russian InvEstigation of MethotrexAte and biologics in eaRly aCtive inflammatory Arthritis), and 88 pts have passed the 12 months control point. All pts started SC MTX monotherapy with rapid up-titration of the dose from 10 to 25–30 mg/week. Therapy was revised every 3 months using DAS28, SDAI and CDAI indices. Combination with biologics (in most cases TNF inhibitors)