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AB0440 IMPACT OF VITAMIN D DEFICIENCY UPON DISEASE ACTIVITY AND IMMUNE DISORDER IN RHEUMATOID ARTHRITIS PATIENTS

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Background: Emerging evidence suggests that vitamin D plays an important role in immune regulation.
Objectives: The objective of this work was to determine if patients with rheumatoid arthritis (RA) are at risk for vitamin D deficiency and whether vitamin D levels correlate with disease activity or immune disorders.
Methods: This study was a retrospective research. RA patients who had vitamin D levels and immune function indexes of each other were included. Patients receiving or have received vitamin D, corticosteroids, disease-modifying anti-rheumatic drugs or a tumor necrosis factor antagonist and those who had hepatic or renal insufficiency were excluded. Multivariate analysis was performed to examine correlations and control for confounding factors.
Results: As suggested threshold (≤25 ng/ml), the overall prevalence of vitamin D insufficiency was 265 of 280 (94.8%). Mean serum vitamin D insufficiency levels of 11.15±4.74 ng/ml for RA patients were significantly lower compared to controls (31.62±6.46) (p=0.001). Among all the subjects, 208 (72.7%) were females. Vitamin D levels in high disease activity group were lower compared to vitamin D level in patients with low and moderate disease activity (DAS-28 score >5.1, 3.2–5.1, <3.2, respectively, p<0.001) and vitamin D levels had an inverse correlation with DAS28 score (β-coefficient-0.164, p=0.018, per 1 ng/ml). In patients with RA, the levels of vitamin D were moderately and inversely associated with Th 17 (β-coefficient-0.158, p=0.019, per 1 ng/ml). However, no significant relationship was found between vitamin D and these variables (T cell, B cell, NK cell, Treg, Th1, Th2, Th17/Treg) in patients.
Conclusions: Lower levels of vitamin D are associated with worse DAS28 and higher levels of Th17 with RA, especially in female patients. The levels of 1,25-dihydroxycholecalciferol (1,25$(OH)_2D_3$) could be a marker to monitor the disease activity in RA patients and vitamin D may be an alternative supplementary treatment for RA.
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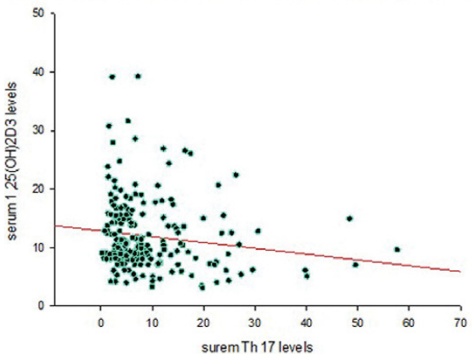
Table 1. Disease activity, immune function indexes with RA as mean ± standard deviation or number (%) for total group and based on vitamin D status

Variables	All patients N=280	Patients with Vitamin D insufficiency N=265	Patients without Vitamin D insufficiency N=15	P (Insufficiency vs no insufficiency)
Women	208 (72.7)	201 (74.2)	7 (33.3)	0.012
Age (yr)	56.421±12.325	56.109±12.225	61.933±13.215	0.075
Disease duration (yr)	9.004±9.336	9.017±9.374	8.782±8.938	0.925
ESR	59.064±36.483	59.325±36.731	54.467±32.544	0.617
DAS 28	4.754±1.429	4.768±1.426	4.508±1.526	0.494
T cell	1242.473±585.533	1249.317±586.751	1122.933±569.670	0.417
B cell	204.397±182.279	208.206±185.967	137.867±72.572	0.146
NK cell	237.419±187.449	233.782±188.784	300.933±153.989	0.178
Th1	88.290±116.113	87.583±116.660	103.377±108.907	0.691
Th2	12.729±10.819	12.852±10.992	10.121±5.788	0.461
Th17	9.271±9.023	9.330±9.145	8.010±6.059	0.669
Treg	33.710±28.519	34.060±29.025	26.257±12.426	0.424
Th17/Treg	0.421±0.639	0.421±0.647	0.411±0.445	0.964

Table 2. Multivariate associations of serum 1,25$(OH)_2$ D_3 concentrations with RA (n=280)

Variables	β-coefficient	95% CI	p
Gender	-0.241	-5.337 to -1.562	0.001
Age	0.182	0.024 to 0.168	0.009
DAS 28	-0.164	-1.243 to -1.116	0.018
Th 17	-0.158	-0.199 to -0.018	0.019

Figure 3: The correlations between of serum 1,25$(OH)_2D_3$ levels and Th 17 levels.



AB0441 USING OF SUBCUTANEOUS METHOTREXATE IN AGED PATIENTS WITH SEROPOSITIVE RA

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Background: Increasing life expectancy is a global process involving multiple nations, thus deeper insights into methotrexate (MTX) therapeutic potential in aged people is of paramount importance, as MTX still remains an anchor DMARD in RA management.
Objectives: To assess the results of 12-months therapy with subcutaneous MTX (SC MTX) injections in RA patients aged more than 60 years.
Methods: The 12 months open study included pts with active RA (DAS28 >3,2), meeting ACR/EULAR (or ACR 1987) criteria, with RA lasting up to 3 years, and naïve to SC MTX. All pts were RF and/or ACPA-positive, 68% had increased BMI, 31% - obesity, 8% were smokers, 25% were taking oral GCS (≤10 mg/day equivalent to *prednisolone*).All pts were administered SC MTX monotherapy once a week as a DMARD, starting at 10–15 mg/week, with subsequent 5 mg up-titration each 1–2 weeks (to max 30 mg/week) up to achieving the target (remission or minimum disease activity) or up to emergence of an adverse drug reaction (ADR). Folic acid (min 5 mg/week) was administered at any day(s) except for the day of SC MTX injection for ADR prophylaxis. Disease activity was scored using DAS28. GEBA were administered in pts with insufficient SC MTX clinical effect. Pts were monitored within universal institutional REMARKA program, envisaging physical examination, blood analysis and biochemistry panel (including liver enzymes and creatinine). STATISTICA 10 software was used for data processing.
Results: 32 RA pts (28 females, 4 males) were included (mean disease duration 12±10 months, mean age - 65,7±4,7 years, mean DAS28 score -5,6±0,9. Cumulative SCMT dose by the end of the study reached 264±180 mg). The therapeutic target (remission or minimum disease activity based on DAS28 score) was achieved in 20 pts receiving SCMT monotherpay, 12 pts required administration of GEBAs. Adverse drug reactions (ADRs) were documented in 10 pts, including cases of more than one ADR at a time: breast abscess (1), alopecia (2), diarrhea (2), skin rash (1), a metallic aftertaste (1), local post-injection reactions (1), nausea (2), elevation of liver enzymes (3), leucopenia (1), pneumonia (1). There were 5 cases of SC MTX monotherpay discontinuation (2 - temporary, and 3 - permanent). The majority of pts (88%) could manage self-injection without additional training or assistance from medical staff.
Conclusions: 62,5% of aged RA pts participating in the study managed to achieve the therapeutic target after 12 months of SC MT monotherapy, although 31% ADRs rate required temporary (2)/permanent (3) SCMT discontinuation.
Disclosure of Interest: None declared
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SLE, Sjögren's and APS - treatment

AB0442 REAL-LIFE EXPERIENCE WITH BELIMUMAB IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE): CONTROL OF DISEASE ACTIVITY AND FLARES IN A MULTICENTER COHORT

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Background: Data on the efficacy of belimumab in SLE mainly originate from large randomized clinical trials, whereas reports from real-life clinical practice are lacking.
Objectives: To describe the clinical experience from the use of belimumab in Greece since the approval of the drug.
Methods: Multicentre observational study of patients receiving belimumab, with documentation of disease activity (SLEDAI-2K index), achievement of low disease