

groups compared to those of the control. 1,25(OH)₂D₃ had no significantly impact on the level of Th1, Th2, Treg and the ratio of Th1/Th2.

Conclusions: The present study demonstrated that 1,25(OH)₂D₃ inhibits the synthesis of Th1 cytokines IFN- γ , Th17 cytokines IL-17, IL-22, IL-6, TNF- α , and up-regulates Th2 cytokine IL-4, which indicated that the possible immunoregulatory role and bone-sparing effects of 1,25(OH)₂D₃ in RA through modulation of the Th1/Th17 and Th2 cytokine balance.

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AB0423 MINIMALLY INVASIVE SURGICAL TREATMENT OF TEMPOROMANDIBULAR JOINT IN PATIENTS WITH VARIOUS RHEUMATIC DISORDERS

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Background: Currently, maxillofacial surgery to actively develop and improve minimally invasive surgical methods for the treatment of patients with diseases of temporomandibular joint (TMJ). These types of surgical treatments like arthroscopy and arthrolysis TMJ are less traumatic and therefore can be effective in patients with rheumatic pathology.

Objectives: To evaluate the efficacy of minimally invasive surgical treatment of TMJ in patients with rheumatic diseases (RD).

Methods: In the study were included 64 pts aged from 18 to 65 years with various rheumatic disorders and lesions of the TMJ. Of these, rheumatoid arthritis (RA) - 43 (67.2%), psoriatic arthritis (PsA) 11 (17.2%), systemic lupus erythematosus - 8 (12.5%) and ankylosing spondylitis (AS) - 2 (3.1%). Before and after 14 days, a month and 6 months after surgery were assessed the following parameters: the level of pain in the TMJ (VAS), the aperture of mouth opening. All the patients at baseline and at 6 months after treatment was performed MRI of the TMJ. Interpretation of the TMJ MRI studies performed by the presence of signs of pathological changes in the joint, which were scored according to the number of pathological signs (from 0 to 8 points). As a preparatory stage before surgery all patients - splint therapy during 1 month was performed. Surgery included arthrolysis and arthroscopy TMJ followed by the introduction of hyaluronic acid.

Results: Before treatment all patients had severe involvement of the TMJ by Wilkes international classification: III of St is 62.5%, IV - by 21.9%, V - 15.6%. 6 months after surgical treatment the level of pain in the TMJ decreased 9.8 times (from 4.9 to 0.5, p<0.0001). Mouth opening increased 2.3 times (from 17.5 mm to 40.9 mm, p<0.0001), was reached from 96.7% of patients normal value. In the control MRI study of the TMJ at 6 months after surgery, the quantity of signs of pathological changes in the joints were reduced by 2.7 times in comparison with the initial level. The best results were achieved in patients with RA and PsA. The lowest result was achieved in the group of patients with AS.

Conclusions: Minimally invasive methods of surgical treatment of TMJ (arthrolysis and arthroscopy), the most effective and appropriate for the treatment of patients with RD lesion of the temporomandibular joint.

Disclosure of Interest: None declared

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AB0424 THE EFFECT OF HIGH LEVEL OF ANTI-CITRULLINATED PROTEIN ANTIBODIES AND RHEUMATOID FACTOR ON BONE EROSIONS IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS—A CROSS-SECTIONAL AND LONGITUDINAL ANALYSIS

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Background: Bone erosions are a key feature of rheumatoid arthritis (RA) reflecting both disease severity and disease progression. Recent studies using HR-pQCT demonstrated impairment in the bone microstructure of the metacarpophalangeal (MCP) joints of ACPAs-positive healthy individuals despite no signs of arthritis. In patients with established RA, ACPAs and rheumatoid factor (RF) showed an additive effect on erosion number and erosion size. Furthermore, RF influences erosion size only in ACPAs-positive but not in ACPAs-negative patients.

Objectives: To determine the effect of high titre of anticitrullinated protein antibodies (ACPAs) and rheumatoid factor (RF) on the number and size of bone erosions in patients with early rheumatoid arthritis (ERA) by high-resolution peripheral quantitative computed tomography (HR-pQCT) at baseline and whether these antibodies are associated with the progression of erosion after one year of follow-up.

Methods: In the cross-sectional study, HR-pQCT of the second metacarpophalangeal joint (MCP2) was performed in 124 patients with ERA at baseline, images were analysable in 117 patients. Erosions were visualized in 72 patients and parameters of bone erosions were assessed. In the prospective study, 63 ERA patients who had completed one year of follow-up with repeat HR-pQCT scan were also analysed. The number and volume of the erosions as well as bone mineral density (BMD) surrounding erosion were quantified. Data on demographic and disease-specific parameters including ESR, CRP, DAS 28, ACPAs and RF levels and treatment were recorded.

Results: At baseline, 90/117 patients were both ACPAs and RF positive (ACPAs+/RF+ group), 7/117 were only RF (RF+), 13/117 were only ACPAs (ACPAs+) and 7/117 were antibody negative (non-ACPAs+/RF+ group, n=27). Erosion depth and volume were increased in the ACPAs+/RF+ group compared with the non-ACPAs+/RF+ group (both P<0.05) (Table 1). Independent explanatory variables associated with a larger erosion volume included RF>16U (P=0.012), older age (P=0.003) and a higher damage joint count (P=0.028). Images from 63 patients who completed 12 months follow-up were analysed. Erosion volume were significantly lower in patients who achieved simplified disease activity score (SDAI) remission at 12 months compared to those who did not (P=0.045). Linear regression analysis indicated that independent predictors for an increase in erosion volume included RF>16U (P=0.032) and a higher damage joint count (P=0.009) at baseline and failure to achieve SDAI remission at 1 year (P=0.043).

parameters	Total sample	RF+/ACPAs+	Not RF+/ACPAs+	P value
N (total)	117	90	27	
Females N (%)	87 (74.36%)	66 (73.33%)	21 (77.78%)	0.500
Age (years)	53.02±13.0155	52.993±13.0250	53.129±13.2313	0.962
Disease duration (months)	7.1207±5.15862	7.4157±5.31466	6.1481±4.56326	0.265
ESR(mm/1 hr)	58.95±32.6734	59.942±34.5028	55.704±26.0455	0.497
CRP(mg/dl)	18.738±10.9550	18.712±26.4026	18.822±19.0308	0.984
DAS28-CRP(4)	4.8615±0.92659	4.8068±0.92384	5.0418±0.92999	0.250
DAS28-ESR(4)	6.8612±1.05333	6.8406±1.05429	6.9291±1.06729	0.704
SDAI score	28.0363±11.14522	27.7124±10.94763	29.1041±11.92582	0.572
HAQ	1.02283±0.742946	0.96449±0.664134	1.21296±0.946155	0.129
Tender joint count (0-68)	8.00 (5-12.75)	8.00 (5-12)	8.00 (4-15)	0.345
Swollen joint count (0-66)	5.00 (2-7)	4.00 (2.5-7)	5.00 (2-6)	0.780
Damage joint count (0-68)	2.00 (1-3)	2.00 (1-3)	2.00 (1-4)	0.485
Treatment				
no	82	62	20	0.50
ever	16	12	4	0.52
current	19	14	5	0.49
Erosions(MCP2,N)	135	109	26	
Erosions/patients(N)	1.1538	1.2111	0.96296	0.307
Width(mm)	2.7218±1.87087	2.7279±2.02280	2.5558±1.34248	0.531
Depth(mm)	1.0686±0.88600	1.1392±0.98107	0.8615±0.44234	0.048
Volume(mm3)	4.4756±6.38831	5.3472±5.98738	1.8312±1.38206	0.017
BMD(mg/cm3)	423.886±103.8231	420.164±109.6622	431.2889±83.10927	0.585

Conclusions: ACPAs and RF show an additive effect on erosion volume in ERA patients. Higher RF titre was associated with larger erosion volume at baseline and predicted progression of erosion volume after adjusting for baseline parameters and treatment response.

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