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AbstractBook

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EFFECT OF COMBINED THERAPY ON THE INFLAMMATION BIOMARKERS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Objective: To evaluate efficiency of combination therapy including infliximab (IF) in RA patients by means of inflammation markers (ESR, CRP) and serum pro-inflammatory (TNFα, IL-1) cytokines.

Methods: 18 patients with RA diagnosis were included in the 30-week study. The average age of patients was 46.0±8.4 y, disease duration 13.2±5.3 y. 83.3% of patients were seropositive for rheumatoid factor, 66.8% were ACCP-positive. Each patient was treated with methotrexate (MT) 12.5-20 mg/week. IF was administered at the dose of 3 mg/kg, according to the common scheme. Patients were examined at week 0 (before the inclusion), week 14, and week 30 after beginning of IF therapy.

Results: All patients had DAS28-CRP(4)>5.6. ESR and CRP have decreased by the 30th week. The average VAS score at week 0 was 68.3 mm, at week 30 - 26.0 mm. There were 50% of patients with good response to IF therapy, 33.3% with moderate one, and 16.7% without significant effect. Serum concentrations of pro-inflammatory cytokines (TNFα, IL-1) at week 30 were substantially decreased compared to initial levels along with trend of RF, ESR and CRP normalization as well as improvement of clinical manifestations (Table).

Table. Dynamics of clinical and laboratory markers in combination therapy (Me)

Indicator	0 week	14 week	30 week
RF, IU/l	45295 [12830; 134920]	25375 [7080; 80350]	9920 [5600; 110230]
ESR, mm/h	37 [4; 40]	10.5 [3; 51]	10 [2; 30]
CRP, mg/l	20.8 [4.6; 194.8]	2.65 [0.4; 33.4]	5.2 [1.1; 9]
DAS28-CRP(4)	5.63 [4.38; 6.24]	4.5 [2.5; 6.76]	3.58 [2.25; 4.91]
TNFα, pg/ml	6.92 [3.46; 11.03]	–	2.09 [1.74; 4.06]
IL-1, pg/ml	8.18 [4.64; 10.12]	–	3.25 [2.1; 6.45]

Conclusion: Tight correlation between shifts of TNFα, IL-1 levels with common clinical and laboratory markers of RA activity against the background of combined IF-MT treatment enables us to use these innovational biomarkers for RA treatment monitoring.

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RISK OF FRACTURE IN GLUCOCORTICOID REQUIRING DISEASES: AN ANALYSIS ON A NATIONWIDE DATABASE

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Objective: Glucocorticoid-induced osteoporosis (GIOP) is the most common form of secondary osteoporosis. Glucocorticoids (GCs) are prescribed to patients affected by inflammatory diseases that are themselves independent risk factors for osteoporosis. The aim of the present study was to determine the risk of fracture associated with chronic GC use and a variety GC requiring diseases.

Methods: We conducted a retrospective cohort analysis of a nationwide cohort (DeFRACalc79 database). DeFRACalc79 is an algorithm for the estimation of the fracture risk that considers many risk factors, including glucocorticoid use. We used multivariable regression analysis adjusting for several risk factors for fracture and GC intake to estimate the independent role of glucocorticoid requiring illnesses on fracture risk.

Results: We found that GCs, at doses ≥5 mg/d for >3 months, were associated with a 60% increased risk of vertebral or hip fractures (aOR 1.58, 95%CI 1.43-1.76) and with a 30% increased risk of fragility fractures of any kind (aOR 1.32, 95%CI 1.20-1.45). We found that patients with rheumatoid arthritis (RA), connective tissue diseases (CTDs), chronic obstructive pulmonary disease (COPD) and neurological diseases (ND) were at greater risk of vertebral or hip fracture (crude ORs 1.31, 1.20, 1.92 and 2.97 respectively). After adjusting for potential confounders (i.e., GCs, age, BMD levels, menopause and familiar history of fractures) COPD and ND remained significantly associated with an increased risk of vertebral or hip fractures (aORs 1.33, 95%CI 1.18-1.49 and 2.43, 95%CI 2.17-2.74). RA, COPD, IBD and ND also significantly increased the risk of non-vertebral, non-hip fractures (aORs 1.23, 1.42, 1.52 and 1.94 respectively). Figure shows the risk of fracture in different diseases.

Conclusion: GC requiring diseases were independently associated with an increased risk of fractures: COPD and ND with both vertebral and non-vertebral fracture risk while RA and IBD were inde-