AB0365

CLINICAL, LABORATORY AND IMAGING OUTCOMES IN TOCILIZUMAB-TREATED PATIENTS WITH LARGE VESSEL-GIANT CELL ARTERITIS ACCORDING TO EARLY ONSET THERAPY

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Background: Tocilizumab (TCZ) has shown efficacy in large vessel vasculitis (LVV)-Giant Cell Arteritis (LVV-GCA) (1-2). ¹⁸F-fluodeoxyglucose positron emission tomography (¹⁸F-FDG PET/CT) is useful to assess LVV disease activity (3-5). It is unknown if early treatment with TCZ may have an influence on clinical, laboratory and imaging outcomes.

Objectives: To assess clinical, laboratory and PET/CT activity improvement in LVV-GCA patients treated with TCZ according to the time from disease diagnosis to TCZ onset.

Methods: Comparative single-center study of 30 LVV-GCA patients treated with TCZ who were divided into 2 groups depending on the time of onset of TCZ: **a)** early onset (≤ 6 months; **b)** late onset (> 6 months; $n=15$). All patients had a baseline and a follow-up PET/CT scan. Complete clinical improvement and normalization of laboratory markers (CRP ≤ 0.5 mg/dL and/or ESR ≤ 20 mm/1st hour) was assessed. For imaging evaluation, normalization of total visual score (TVS) was considered when TVS = 0 and normalization of semiquantitative activity if the target to background ratio (TBR) at the thoracic aorta was <1.34 .

Results: 30 patients were included (24 women/6 men); mean age 65.7 ± 9.8 years. Patients in the TCZ early-onset group were receiving higher doses of prednisone (10.0[5.9-15.0] vs 5.0 [5.0-7.5] mg/day; $p < 0.01$) and had higher TVS scores (7.0 [4.0-9.0] vs 3.0 [2.0-5.0]; $p < 0.01$) at baseline (Table 1). Following TCZ initiation, after a mean of 10.8 ± 3.7 months, most patients achieved complete clinical improvement and normalization of ESR and CRP in both groups. Uncoupling with imaging outcomes was observed in both groups. Although non-significant statistical differences were observed, complete TBR normalization (TBR <1.34) and complete TVS normalization (TVS=0) tended to be more frequent in the group of patients who received early-onset TCZ therapy (Figure 1).

Table 1.

	Early-onset TCZ therapy (n= 15)	Late-onset TCZ therapy (n=15)	p
General features			
Age (years), mean $\pm$ SD	65.8 $\pm$ 9.9	65.5 $\pm$ 10.1	0.94
Sex (female), n (%)	11 (73.3)	13 (86.7)	0.65
GCA evolution before TCZ onset, median [IQR]	2.0 [1.0-5.0]	18.0 [9.0-34.0]	< 0.01
Laboratory			
ESR (mm/1st hour), mean $\pm$ SD	34.7 $\pm$ 26.3	30.8 $\pm$ 28.7	0.70
CRP (mg/dL), median [IQR]	1.1 [0.6-2.3]	0.8 [1.8 -2.5]	0.28
Prednisone dose (mg/day), mean $\pm$ SD	10.0 [5.9-15.0]	5.0 [5.0-7.5]	0.01
TCZ therapy			
Intravenous, n (%)	10 (66.7)	11(73.3)	0.99
Combined with MTX, n(%)	6 (40)	8 (53.3)	0.46
PET /CT activity			
TBR at thoracic aorta	1.86 $\pm$ 0.69	1.54 $\pm$ 0.18	0.09
TVS	7.0 [4.0-9.0]	3.0 [2.0-5.0]	< 0.01
Complete clinical improvement, n (%)	13 (86.7)	12 (80)	0.99
Normalization of ESR and CRP, n (%)	15 (100)	15 (100)	0.99
PET/CT improvement			
Complete TBR normalization	6 (40)	3 (20)	0.23
Complete TVS normalization	2 (13.3)	1 (6.7)	0.54

CRP: C-reactive protein; ESR: erythrocyte sedimentation rate; TBR: target-to-background ratio.

* Normalization of TBR was considered when TBR < 1.34 . ** Normalization of TVS was considered when TVS=0.

Conclusion: TCZ was effective in patients with LVV-GCA regardless the time from disease diagnosis to TCZ onset. However, complete normalization of vascular activity in PET/CT scans tended to occur more likely in patients who receive early-onset TCZ therapy within the first 6 months of the disease.

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AB0366

TOCILIZUMAB FOR TAKAYASU ARTERITIS: MULTICENTER STUDY OF 54 WHITE PATIENTS

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Background: Tocilizumab (TCZ) has shown to be effective for large vessel vasculitis including Takayasu arteritis (TAK) (1-3). Most evidence in TAK comes from Asian patients. However, white patients seem to have different clinical and prognostic features.

Objectives: Our aims were to: **a)** assess the efficacy and safety of TCZ in white patients with refractory TAK, **b)** determine if clinical improvement correlates with imaging outcomes, **c)** compare TCZ in monotherapy (TCZ_{MONO}) vs combined with conventional immunosuppressive drugs (TCZ_{COMBO}).

Methods: Multicenter study of white patients with refractory TAK who received TCZ. Outcomes variables were remission, glucocorticoid-sparing effect, improvement in imaging techniques, and adverse events. A comparative study between patients who received TCZ_{MONO} and TCZ_{COMBO} was performed.

Results: 54 patients (46 women/8 men; median age 42.0 [32.5-50.5] years). TCZ was started after 12.0 [3.0-31.5] months since TAK diagnosis. Remission was achieved in 12/54 (22.2%), 19/49 (38.8%), 23/44 (52.3%) and 27/36 (75%)