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THU0439

TOCILIZUMAB IN GIANT CELL ARTERITIS. NATIONAL MULTICENTER STUDY OF 134 PATIENTS OF CLINICAL PRACTICE

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Background: Giant cell arteritis (GCA) can be refractory to corticosteroids¹⁻³. Tocilizumab (TCZ) demonstrated to be effective in two short-term clinical trials.

Objectives: To assess efficacy of TCZ in refractory GCA or with side effects to corticosteroids in clinical practice.

Methods: Multicenter study on 134 patients with GCA in treatment with TCZ due to lack of efficacy and/or unacceptable adverse events of previous therapy.

Results: 134 patients (101 w/33 m); mean age of 73.0±8.8 years. Main clinical features at TCZ onset were: PMR (n=73), constitutional syndrome (n=31), headache (n=70), visual (n=28) and jaw (n=14) affection. Besides steroids, 98 patients also received immunosuppressive agents. table 1 shows evolution during follow-up period. After a median follow-up of 12 [3.7–24] months, it was observed a decrease in: **a)**CRP from 1.7 [0.4–3.2] to 0.1 [0.0–0.3] mg/dL **b)**ESR from 33 [14.5–61] to 4²⁻⁹ mm/1st hour and **c)** Prednisone dose from 15¹⁰⁻³⁰ to 5 [0–7.5] mg/day. Outcome of patients was: **a)**discontinuation of TCZ (n=15) due to sustained remission, **b)**dose reduction due to improvement (n=17) or side effects (n=11), **c)**withdrawal of TCZ because of side effects (n=12) and **d)**same dose that at onset (n=73). TCZ had to be discontinued due to: infections, haematological and cardiovascular alterations, neoplasms and hepatic toxicity among the most frequent.

Table 1:

	Baseline n=134	Month 1 n=132	Month 3 n=122	Month 6 n=99	Month 12 n=71	Month 24 n=39
Clinical improvement % (n#)		93.9% (124/132)	94.2% (115/122)	94.9% (94/99)	92.9% (66/71)	100% (39/39)
Laboratory markers, median [IQR]						
ESR (mm/1 st h)	33 [14.5-61]**	8 [2-12]** (102)	4 [2-7.5]** (116)	4 [2-8]** (93)	4 [2-8]** (71)	8 [2-16]** (39)
CRP (mg/dl)	1.7 [0.4-3.2]**	0.1 [0-0.5]** (96)	0.1 [0-0.4]** (110)	0.1 [0-0.3]** (92)	0.1 [0-0.3]** (67)	0.1 [0-0.4]** (39)
Hemoglobin (g/dl)	12.3 [11.4-13.2]**	13.2 [12.3-14]**	13.5 [12.5-14.3]**	13.6 [12.8-14.1]**	13.3 [12.5-14]**	13.1 [12.3-13.9]**
Dose of corticosteroids (mg/day), median [IQR]	15 [10-30]** (134)	13.7 [7.5-20]** (115)	8.1 [5-12.5]** (120)	5 [2.5-7.5]** (97)	2.5 [0.5-5]** (71)	0 [0-5]** (39)

Improvement in at least one of the clinical features. *p<0.001 **p<0.0001 (test de Wilcoxon).

Conclusions: TCZ leads to a rapid and maintained improvement in patients with refractory GCA and/or with unacceptable side effects related to corticosteroids. However, the risk of neutropenia and infection should be kept in mind.

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SOLUBLE CTLA-4 IS ELEVATED IN PATIENTS WITH POLYMYALGIA RHEUMATICA AND CORRELATES WITH VASCULAR INFLAMMATION DETECTED BY PET/CT

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Background: Positron emission tomography has shown the presence of large vessel vasculitis (LVV) in 30%–40% of patients with apparently isolated polymyalgia rheumatica (PMR)^[1], but biomarkers associated with the presence of LVV in PMR patients are still lacking. Anti-cytotoxic T lymphocyte antigen-4 (CTLA-4) and its soluble (s) form, resulting from alternative splicing, are well-known immune checkpoint receptor^[2] and have shown to play a role both in neoplastic^[3] and autoimmune diseases^[4]. The rationale for studying the involvement of CTLA-4 in PMR is provided by the evidence of drug-induced PMR/giant cell arteritis (GCA) in patients treated with ipilimumab, an anti-CTLA-4 antibody^[5].

Objectives: To evaluate the concentration of sCTLA-4 in PMR patients and to correlate it with vascular and joint inflammation.

Methods: Forty consecutive patients with of PMR, of whom 9 also had also GCA, underwent a standardised clinical examination and a PET/CT scan. Arterial and joint uptake of FDG were scored relative to liver and then summed up to obtain a total vascular score (TVS) and a total joint score (TJS). Patients were further subdivided into three groups for the analysis of the correlation with joint and vascular uptake: "vasculitic patients" (with grade-3 uptake in at least one vascular district), patients with intermediate uptake (excluded from this set of analyses), and patients without vasculitis. sCTLA-4, was evaluated by ELISA. Patients without autoimmune diseases served as controls.

Results: sCTLA-4 serum levels were significantly higher in PMR patients than in controls (p<0.001, figure 1), although their concentrations did not significantly differ between patients with and without vasculitis. However, sCTLA-4 showed a positive correlation with TVS (r=0.35, p=0.025), figure 1. Panel A: comparison of serum level of sCTLA-4 in patients with PMR and controls (HD: healthy donors). Panel B: correlation between sCTLA-4 and total vascular score.

Conclusions: The present study provides the first evidence that serum sCTLA-4 concentration is elevated in PMR patients, and that it correlates with TVS. Although the exact mechanisms underlying the upregulation of sCTLA-4 remain