AB0577

TOCILIZUMAB IN GIANT CELL ARTERITIS. ROUTE OF ADMINISTRATION: INTRAVENOUS OR SUBCUTANEOUS

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Background: Recently, based on the GACTA trial results, weekly subcutaneous Tocilizumab (TCZ) has been approved for the treatment of Giant Cell Arteritis (GCA). It has showed to be effective and safety.

Objectives: Our aim was to compare the efficacy of TCZ according the route of administration.

Methods: Multicenter study of 134 GCA patients in treatment with TCZ. It was performed a comparative study between 2 groups according the route of administration of TCZ, intravenous (IV) or subcutaneous (SC).

Results: We study 134 patients divided in 2 groups: a) IV TCZ, 104 cases and, b) SC TCZ, 30 cases, with a mean age 73.4±8.2 years vs 71.9±10.6 years, respectively (p=0.501). Disease duration, clinical manifestations and acute phase reactants at TCZ onset were similar in both groups with non-statistical difference. 91.7% patients who received SC TCZ achieved prolonged remission after 12 months of treatment (p=0.043). And the glucocorticoid sparing effect of TCZ was greater in the same group, reaching a statistical difference at 3 and 24 months (p=0.017 and p=0.021). Patients under IV TCZ treatment suffered more adverse event during follow up (p=0.043). **TABLE 1** and **2** summarizes the comparative study.

Conclusion: Patients in treatment with SC TCZ, reached prolonged remission after 12 months of treatment and were able to discontinue prednisone dose after 24 months of follow up. The incidence of adverse events was more frequent in the IV TCZ group, without difference in relation to infections.

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TABLE 1

	TCZ IV (n=104)	TCZ SC (n=30)	P
BASAL FEATURES AT TCZ ONSET			
GENERAL FEATURES			
Age, years, mean (SD)	73.4 ± 8.2	71.9 ± 10.6	0.501
Sex, female/male n (%)	77/27	24/6	0.504
Time from GCA diagnosis to TCZ onset (months), median (IQR)	14.5 [5-35]	11.5 [5-25.5]	0.447
ADDITIONAL AND OTHER LVV INVOLVEMENT, n (%)	49 (47.1)	9 (30)	0.096
ACUTE PHASE REACTANTS			
ESR, mm/1 st hour, mean (SD)	41.8 ± 31.2	35.9 ± 31.7	0.301
CRP, mg/dL, mean (SD)	3.3 ± 5.8	2.1 ± 3.1	0.191
Hemoglobin, g/dL, mean (SD)	12.1 ± 1.4	12.7 ± 1.6	0.145
CORTICOSTEROIDS AT TCZ ONSET			
Prednisone dose, mg/d mean (SD)	16.9 ± 13.2	13.6 ± 11.2	0.457

TABLE 2

	TCZ IV (n=104)	TCZ SC (n=30)	P
EFFICACY AND SAFETY AFTER TCZ			
Prolonged remission n (%)			
Month 6	45 (56.3)	13 (65)	0.712
Month 12	35 (61.4)	11 (91.7)	0.043
Month 24	21 (63.6)	6 (85.7)	0.257
Relapses n (%)			
Month 1	2 (2.0)	2 (8.9)	0.184
Month 3	3 (3.1)	4 (15.4)	0.017
Month 6	5 (6.3)	0	0.251
Month 12	9 (15.8)	0	0.140
Month 24	7 (21.2)	0	0.180
Corticosteroids sparing effects, median (IQR)			
Month 1	16.9 [7.5-23.8]	13.6 [7.5-15]	0.257
Month 3	10.6 [5-12.5]	9.2 [5-10.6]	0.359
Month 6	6.9 [2.5-7.6]	3.8 [1-5]	0.032
Month 12	3.7 [0-5]	1.7 [0-4.4]	0.085
Month 24	2.4 [0-5]	0 [0-0]	0.021
Side effects, n (%)			
Relevant adverse events	29 (27.9)	3 (10)	0.043
Serious infections	14 (13.5)	2 (6.6)	0.544

Disclosure of Interests: Monica Calderón-Goercke: None declared, J. Loricera: None declared, D. Prieto-Peña: None declared, Vicente Aldasoro: None declared, Santos Castañeda Consultant for: Amgen, BMS, Pfizer, Lilly, MSD, Roche, Sanofi, UCB, Ignacio Villa-Blanco: None declared, Alicia Humbría: None declared, Clara Moriano: None declared, Susana Romero-Yuste: None declared, J. Narváez Consultant for: Bristol-Myers Squibb, Catalina Gomez-Arango: None declared, Eva Perez-Pampín: None declared, Rafael Melero: None declared, Elena Becerra-Fernández: None declared, Marcelino Revenga: None declared, Noelia Álvarez-Rivas: None declared, Carles Galisteo: None declared, Francisca Sivera: None declared, Alejandro Olive: None declared, María Álvarez del Buergo: None declared, Luisa Marena Rojas: None declared, Carlos Fernández-López: None declared, Francisco Navarro: None declared, Enrique Raya: None declared, Eva Galindez: None declared, Beatriz Arca: None declared, Roser Solans-Laqué: None declared, Arantxa Conesa: None declared, Cristina Hidalgo: None declared, Carlos Vázquez: None declared, Jose Andrés Román-Ivorra: None declared, Pau Lluch: None declared, Sara Manrique Arijá Speakers bureau: Abbvie, MSD, Janssen, Lilly, Roche, Pfizer, Novartis., Paloma Vela-Casasempere Grant/research support from: UCB, Abbvie, Pfizer, Roche, Bristol-Myer-Squibb (another research, not BIOBADASER related), Consultant for: UCB, Lilly, Pfizer, Roche, Bristol-Myer-Squibb, Speakers bureau: Roche, UCB, MSD, Pfizer, GSK, BMS, Lilly, Eugenio de Miguel: None declared, Carmen Torres-Martín: None declared, Juan Carlos Nieto: None declared, Carmen Ordas-Calvo: None declared, Eva Salgado-Pérez: None declared, Cristina Luna-Gomez: None declared, Francisco J. Toyos Sáenz de Miera: None declared, Nagore Fernández-Llanio: None declared, Antonio García: None declared, Carmen Larena: None declared, Natalia Palmou-Fontana: None declared, Vanesa Calvo-Río: None declared, Carmen González-Vela: None declared, Alfonso Corrales: None declared, María Varela-García: None declared, Elena Aurecochea: None declared, Raquel Dos-Santos: None declared, Ángel García-Manzanares: None declared, Norberto Ortego: None declared, Sabela Fernández: None declared, Francisco Ortiz-Sanjuán: None declared, Montserrat Corteguera: None declared, J. Luis Hernández: None declared, Miguel A. González-Gay Grant/research support from: Prof. MA Gonzalez-Gay received grants/research supports from Abbvie, MSD, Jansen and Roche., Speakers bureau: Consultation fees/participation in company sponsored speaker's bureau from Pfizer, Lilly, Sobi, Celgene, Novartis, Roche and Sanofi., Ricardo Blanco Grant/research support from: Abbvie, MSD, and Roche, Consultant for: Abbvie, Pfizer, Roche, Bristol-Myers, Janssen, Speakers bureau: Abbvie, Pfizer, Roche, Bristol-Myers, Janssen

DOI: 10.1136/annrheumdis-2019-eular.2226

AB0578

DIFFERENCES AND CHARACTERISTICS OF PRIMARY LARGE VESSEL VASCULITIS AND LARGE VESSEL VASCULITIS ASSOCIATED WITH GIANT CELL ARTERITIS. STUDY OF 28 CASES FROM THE SAME CENTER

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Background: Large vessel vasculitis (LVV) is a severe entity with non-specific clinical symptoms, which contributes to a delay in diagnosis and sometimes to serious complications. LVV can be primary or secondary, with giant cell arteritis (GCA) being the most common association.

Objectives: To describe the characteristics and differences between patients with primary LVV and LVV associated with GCA in a single center.

Methods: Retrospective study of patients with LVV in a University Hospital (January 2013-December 2018). Patients diagnosed with aortitis using an imaging test (PET-CT/angioCT/CT/MRI) were included. GCA was diagnosed by biopsy and/or ultrasound of the temporal artery. The primary LVV was considered by exclusion of inflammatory or infectious causes. Epidemiological, clinical and analytical variables, affected vascular territories and the treatment received in both groups were reviewed. Frequencies and percentages were used in qualitative variables, mean $\pm$ SD in quantitative and for the comparison between groups Chi2 test or Fisher test was used in categorical variables and Student T test or U of Mann-Whitney in quantitative. The statistical analysis was performed with IBM SPSS v.23.

TABLE 1. CHARACTERISTICS OF PRIMARY LVV AND LVV ASSOCIATED WITH GCA.

	Primary LVV, n=15	LVV associated with GCA, n=13	P
Age, mean $\pm$ SD	66.33 $\pm$ 10.16	76.77 $\pm$ 8.9	0.004*
Age $\geq$ 70 years, n (%)	8 (53.3%)	10 (76.9%)	0.254
Sex (M/F)	4/11	3/10	1
VASCULAR RISK FACTORS			
High blood pressure, n (%)	3 (20%)	7 (53.8%)	0.114
Diabetes, n (%)	2 (13.3%)	0 (0%)	0.484
Dyslipidemia, n (%)	4 (26.7%)	5 (38.5%)	0.689
Tobacco, (%)	2 (13.3%)	3 (23.1%)	0.598
CLINICAL FEATURES AT AORTITIS DX			
Constitutional syndrome, n (%)	10 (66.7%)	9 (69.2%)	1
Fever, n (%)	6 (40%)	2 (15.4%)	0.221
Atypical Pmr, n (%)	10 (66.7%)	6 (46.2%)	0.274
Inflammatory low back pain, n (%)	7 (46.7%)	1 (7.7%)	0.038*
Irradiated lower limb pain, n (%)	2 (13.3%)	2 (15.4%)	1
LABORATORY TEST AT AORTITIS DX			
Hemoglobin, mean $\pm$ SD	12.07 $\pm$ 1.85	11.1 $\pm$ 1.13	0.108
Platelets, mean $\pm$ SD	310013 $\pm$ 112683	308538 $\pm$ 80075	0.751
CRP, mean $\pm$ SD	2.94 $\pm$ 1.94	5.52 $\pm$ 5.7	0.118
ESR, mean $\pm$ SD	70.2 $\pm$ 31.02	65.31 $\pm$ 23.79	0.683
AFFECTED TERRITORIES			
Superior limbs, n (%)	1 (6.7%)	1 (7.7%)	1
Supra-aortic trunks, n (%)	10 (66.7%)	10 (76.9%)	0.686
Aortic arch, n (%)	11 (73.3%)	7 (53.8%)	0.433
Thoracic aorta, n (%)	11 (73.3%)	12 (92.3%)	0.333
Abdominal aorta, n (%)	10 (66.7%)	6 (46.2%)	0.445
Iliac arteries, n (%)	1 (6.7%)	4 (30.8%)	0.153
Femoropopliteal arteries, n (%)	1 (6.7%)	2 (15.4%)	0.583
TREATMENT OF AORTITIS AT DX			
Prednisone dose (mg/day), mean $\pm$ SD	44.33 $\pm$ 17.2	38.46 $\pm$ 17.8	0.387
Patients receiving CS pulses, n (%)	4 (26.7%)	3 (23%)	0.827
Patients receiving MTX, n (%)	8 (53.3%)	10 (76.9%)	0.184
MTX dose (mg/week), mean $\pm$ SD	12.81 $\pm$ 4.1	11.25 $\pm$ 3.58	0.460
Patients receiving biological therapy, n (%)	0 (0%)	2 (15.4%)	0.206
EVOLUTION AT 4 MONTHS			
Asymptomatic/partial improvement/no change, n	8/6/1	7/5/1	0.993
Prednisone dose (mg/day), mean $\pm$ SD	16.5 $\pm$ 8.1	20.2 $\pm$ 8.06	0.254
Patients receiving MTX, n (%)	12 (80%)	11 (84.6%)	1
MTX dose (mg/week), mean $\pm$ SD	15.83 $\pm$ 5.6	12.05 $\pm$ 4.3	0.091
Patients receiving biological therapy, n (%)	1 (6.7%)	2 (15.4%)	0.583
CRP, mean $\pm$ SD	0.84 $\pm$ 2.12	0.59 $\pm$ 0.82	0.698
ESR, mean $\pm$ SD	23.4 $\pm$ 27	18.7 $\pm$ 19.1	0.609
Hemoglobin, mean $\pm$ SD	13.45 $\pm$ 1.53	12.75 $\pm$ 1.43	0.230

LVV: large vessel vasculitis, GCA: giant cell arteritis, DX: diagnosis, Pmr: polymyalgia rheumatica, CRP: C-reactive protein, ESR: erythrocyte sedimentation rate, CS: glucocorticoids, MTX: methotrexate

Results: We included 28 patients diagnosed with LVV (9 between 2013-2015 and 19 between 2016-2018). 75% were female with an average age $\pm$ SD of 71.18 $\pm$ 10.8 years. They were divided into two groups: primary LVV (n=15) and LVV associated with GCA (n=13). The diagnosis of GCA was made by ultrasound (n=6), biopsy (n=5) and both tests (n=2). In 7 patients (54%) aortitis and GCA diagnosis was simultaneous. In LVV with GCA, headache was observed in 84.6% of patients and constitutional syndrome in 53.8%.

Primary LVV was characterized by lower age at onset, inflammatory low back pain, fever, atypical polymyalgia rheumatica and lower CRP levels; only the first two variables reached statistical significance, probably due to sample size. TABLE 1

The mean number of affected vascular territories was 3 and thoracic aorta was the most affected territory in both groups.

The steroid treatment was similar in both groups, whereas methotrexate (MTX) was used more frequently in the LVV associated with GCA. In the first 4 months, 1 patient with primary LVV required Tocilizumab (TCZ).

The final clinical evolution was similar and favorable in both groups. At the last visit, after a mean follow-up of 11.94 $\pm$ 8.5 months in the primary LVV and 29.63 $\pm$ 14.8 months in the LVV secondary to GCA, 93% of patients were asymptomatic with a mean ESR of 24.07 $\pm$ 20 and CRP

0.56 $\pm$ 0.91. Treatment used in primary LVV were: glucocorticoids (CS) (n=4), mean dose 8.75 $\pm$ 7.4mg; MTX (n=11), mean dose 18.18 $\pm$ 5.6mg/week and TCZ (n=2). In LVV associated with GCA, 2 patients were without treatment; CS (n=9), mean dose 4.75 $\pm$ 4mg; MTX (n=8), mean dose 13.44 $\pm$ 6mg/week and TCZ (n = 2).

15 imaging tests were performed 6-10 months after diagnosis. Later, after an average time of 28.77 $\pm$ 10.7 months 9 more control PET-CT were requested. TABLE 2.

TABLE 2. EVOLUTION OF IMAGE TESTS PERFORMED.

	Primary LVV, n=15	LVV associated with GCA, n=13	TOTAL=28
AT 6-10 MONTHS, (total of tests performed, n)			
Full resolution, n (%)	0 (0%)	2 (22.2%)	2 (13.3%)
Partial improvement, n (%)	5 (83.3%)	4 (44.4%)	9 (60%)
Without changes, n (%)	1 (16.7%)	2 (22.2%)	3 (20%)
Worsening, n (%)	0 (0%)	1 (11.1%)	1 (6.7%)
LAST PET-CT, (n)			
Time of evolution (months, mean $\pm$ SD)	22.67 $\pm$ 7.51	31.83 $\pm$ 11.29	28.77 $\pm$ 10.7
Full resolution, n (%)	1 (33.3%)	0 (0%)	1 (11.1%)
Partial improvement, n (%)	0 (0%)	2 (33.3%)	2 (22.2%)
Without changes, n (%)	1 (33.3%)	3 (50%)	4 (44%)
Worsening, n (%)	1 (33.3%)	1 (16.7%)	2 (22.2%)

Conclusion: In this study, younger age at onset and inflammatory low back pain were more frequent in primary LVV with statistical significance. The most affected vascular territory was the thoracic aorta in both groups.

The clinical and analytical evolution was similar in both populations. In the treatment, the only notable thing was the increased use of MTX in the LVV associated with GCA.

68% of the aortitis were diagnosed in the last 3 years due to greater clinical suspicion. PET-CT is a useful tool in the diagnosis of this pathology.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.4694

AB0579 COMPARISON OF CLINICAL CHARACTERISTICS OF EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS BETWEEN RHEUMATOLOGY AND RESPIRATORY MEDICINE: A SINGLE CENTER, RETROSPECTIVE STUDY

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Background: Eosinophilic granulomatosis with polyangiitis (EGPA) is a rare but potentially life-threatening systemic necrotizing vasculitis. Multiple organs may be involved and patients initial consulting different departments may have different clinical manifestations.

Objectives: To explore the clinical characteristic of EGPA diagnosed in different departments in our hospital.

Methods: A retrospective study of EGPA patients in Sun Yat-Sen Memorial Hospital, Sun Yat-Sen University, Guangzhou, China. All patients fulfill the ACR 1990 classification criteria or the EULAR/ACR 2017 draft classification criteria. Demographic and clinical data of EGPA patients were collected and compared between different departments.

Results: 1) There were 45 EGPA patients diagnosed between December 2003 and January 2019. There were 29(64.4%) male, with median onset age 46(36-56) years, median time required for diagnosis 24(3-96) months. There were 8(17.8%) patients had history of drug allergy. There were 31(68.9%) patients fulfill the ACR 1990 classification criteria and 40 (88.9%) fulfill the EULAR/ACR 2017 draft classification criteria.

2) The main clinical manifestations included asthma-like symptoms (82.2%), limb numbness (37.8%), rash (22.2%), fever (20.0%), gastrointestinal symptom (11.1%) and arthralgias (8.9%). There were 91.1% (41/45) patients had serum eosinophil $>10\%$, 77.8% (35/45) serum eosinophil $>1.0 \times 10^9/L$, 77.5% (31/40) elevated serum IgE, 7.8% (3/44) positive MPO-ANCA or p-ANCA and 18.4% (7/38) positive ANA.

3) There were 21(46.7%) patients diagnosed at rheumatology, 22(48.9%) at respiratory medicine, 1(2.2%) at dermatology and 1(2.2%) at pediatrics.