**TOCILIZUMAB FOR TAKAYASU ARTERITIS: MULTICENTER STUDY OF 54 WHITE PATIENTS**


**Background:** Tocilizumab (TCZ) has shown to be effective for large vessel vasculitis including Takayasu arteritis (TAK) (1-3), with most evidence coming from small single-center experiences. Our study aimed to evaluate the efficacy and safety of TCZ in a multicenter European registry of patients with refractory TAK who received TCZ.

**Aim:** To assess the efficacy and safety of TCZ in a multicenter European registry of patients with refractory TAK who received TCZ.

**Methods:** A retrospective multicenter study was conducted in white patients with refractory TAK who received TCZ. The main outcomes were change in clinical and imaging outcomes, and safety of TCZ.

**Results:** 54 patients (46 women/8 men; median age 42.0 [32.5-50.5] years) were included in the study. The majority of patients had aortic involvement (n=25), followed by carotid (n=20) and pulmonary arteries (n=19). The median time from TAK diagnosis to TCZ treatment was 12.0 [3.0-31.5] months. Remission was achieved in 12/54 (22.2%), with 24/46 (52.2%) and 27/36 (75%) achieving partial and complete resolution, respectively.

**Conclusion:** This multicenter study in white patients with refractory TAK who received TCZ showed promising results, with high rates of clinical and imaging improvements and acceptable safety profile.

**Disclosure of Interests:** This study was supported by the European League Against Rheumatism (EULAR) and the European Society for Vascular Surgery (ESVS). The authors have no conflicts of interest to declare.

**References:**


**Clinical Laboratory and Imaging Outcomes in Tocilizumab-Treated Patients with Large Vessel Giant Cell Arteritis According to Early Onset Therapy**

D. Prieto-Peña, I. Martinez-Rodriguez, B. Atienza-Mateo, C. Cuenca-Vera, C. J. Gomez de la Fuente, A. Sanchez-Salomon, M. A. Gonzalez-Gay, R. Blanco. Hospital Universitario Marques de Valdecilla, IDIVAL, Rheumatology, Santander, Spain; Hospital Universitario Marques de Valdecilla, IDIVAL, Nuclear Medicine, Santander, Spain.

**Background:** Tocilizumab (TCZ) has shown efficacy in large vessel vasculitis (LVV)-Giant Cell Arteritis (Lvv-GCA) (1-2). 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; n=15) and 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 (10-20 mg/d) vs 5.0 [3.0-7.5] mg/d; p < 0.01) and had higher CRP scores (7.0 [4.0-9.0] vs 3.0 [2.0-5.0]; p < 0.01) at baseline (Table 1). Following TCZ treatment, a median of 10.8 ± 3.7 months, most patients achieved significant 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 TVS normalization (TVS = 0) and complete TVS normalization (TVS = 0) tended to be more frequent in the group of patients who received early-onset TCZ therapy (Figure 1).

**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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Diagnosis of Delay in Patients with Giant Cell Arteritis

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Background: Giant cell arteritis (GCA) is the most common systemic vasculitis in the elderly which can lead to severe complications when treatment is delayed. Therefore, timely diagnosis and start of treatment is essential. Several forms of delay (consultation, referral and diagnostic delay) can contribute to the total delay towards GCA diagnosis. In the Dutch healthcare system, treatment is not started by a general practitioner (GP). When GCA is suspected, GPs refer to specialists. In our hospital, a last track clinic (FTC) is used to expedite diagnosis. However, information on factors contributing to delay is scarce.

Objectives: The aim of this study was to describe the different components of delay towards diagnosis in GCA suspected patients in a general hospital, Ziekenhuisgroep Twente (the Netherlands).

Methods: For this descriptive study, a retrospective cohort consisting of patients with suspected GCA between January 1st 2017 and October 1st 2019 was used to analyse components of delay in diagnosis, as suggested by Prior et al. Consultation delay was defined as the time between start of symptoms and a patient’s first consultation with a GP. Referral delay was defined as the time between a patient’s first consultation with a GP and first visit to the FTC. Diagnostic delay was defined as the time between the first visit to the FTC and treatment initiation. Total delay was defined as the time from symptom onset until start of treatment. Delays were described using the median and interquartile range (IQR).

Results: In our cohort, 206 patients were included for analysis of whom 62 had GCA. Controls (n=144) were suspected of but did not have GCA. Comparing GCA patients with controls, 66.1% and 50.7% were female and the mean (SD) age was 74.2 (9.4) and 70.2 (11.0) years, respectively. In our cohort, the majority of patients (n=42, 67.7%) had cranial GCA (C-GCA). Furthermore, 8 (12.9%) had large vessel GCA (LV-GCA) and 12 (19.4%) had a combination of C-GCA and LV-GCA. For GCA patients, median consultation delay was 2.1 (IQR 0.8-5.8) weeks, referral delay 1.4 (IQR 0.4-4.6) weeks and diagnostic delay 0 (IQR 0-0.1) weeks (Figure 1). For delay regarding consultation and referral, results of controls were comparable to GCA patients. The median total delay was 4.4 weeks (IQR 1.57-10.14) for GCA patients.

Conclusion: With a median total delay of 4.4 weeks, delay in our cohort is almost half the delay described in a review by Prior et al. This difference might be due to FTC implementation and subsequent awareness in our hospital and by local GPs. Patients generally received treatment within one day after FTC visit. Nevertheless, contribution of consultation and referral delay is not resolved by introduction of the FTC, as shown in our data. Timely diagnosis is essential as severe complications can develop instantly, which emphasizes the need to tackle consultation and referral delay.

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