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Šimac, Daniel Victor; Keleva, Dora; Novak, Srđan

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Presentation, diagnosis and treatment of giant cell arteritis: A single centre retrospective study

Klinička slika, dijagnostika i liječenje arteritisa divovskih stanica: retrospektivna studija jednog centra

Daniel Victor Šimac[1*], Dora Keleva[2], Srđan Novak[1]

[1] Clinical Hospital Centre Rijeka, Department of Rheumatology and Clinical Immunology, Rijeka, Croatia

[2] Acibadem Maslak Hospital, Sarıyer, Turkey

Abstract. ***Objective:*** To present patients with giant cell arteritis (GCA) in our centre over a 10 year period in order to confirm current understanding of giant cell arteritis (GCA) and observe any possible specifities in our cohort. ***Patients and Methods:*** In this retrospective study all patients diagnosed with GCA in the Clinical Hospital Centre Rijeka from 1 Jan 2011 to 31 Dec 2021 were included. Data were collected on disease presentation and diagnostic workup at the initial exam, and treatment. ***Results:*** A total of 51 patients were included in the study, of which 72.55% patients were female, and 72.55% were over 70. Of 50 patients with available data in medical documentation, 8 (16.00%) had systemic disease (S-GCA), while the rest had cranial disease (C-GCA). Headache, considered also a pathognomonic sign, was the most common initial symptom (88.00% in whole cohort, or 97.62% if S-GCA is excluded). Of 49 patients, all had increased erthyrocyte sedimentation rate. Temporal artery biopsy was positive in 12/16 patients with C-GCA, while temporal artery ultrasound was positive in 12/16 patients. Biopsy or ultrasound was not performed in 18 patients, of which 8 were patients with S-GCA, and data were not available for one patient. No patients had both a biopsy and ultrasound performed. All patients were treated with glucocorticoids, 9.80% were also treated with methotrexate, 7.84% with toclizumab, and one with both methotrexate and azathioprine. ***Conclusion:*** These results are comparable to other centres in Croatia and at least one centre abroad.

Keywords: arteritis; giant cell arteritis; vasculitis

Sažetak. ***Cilj:*** Prikazati bolesnike s GCA u našem centru tijekom 10-godišnjeg razdoblja kako bi se potvrdila trenutna saznanja o arteritisu divovskih stanica (GCA) i uočile eventualne specifičnosti naše kohorte. ***Ispitanici i metode:*** U retrospektivnu studiju uključeni su svi ispitanici s dijagnosticiranim GCA u Kliničkom bolničkom centru Rijeka od 1. siječnja 2011. do 31. prosinca 2021. Prikupljeni su podatci o njihovoj kliničkoj slici te dijagnostičkoj obradi pri prvom kliničkom pregledu te o terapiji. ***Rezultati:*** U studiju je uključen 51 ispitanik, od kojih je 72,55 % ženskog spola te je 72,55 % starije od 70 godina. Od 50 ispitanika za koje postoje podatci u dokumentaciji, 8 (16 %) ih je imalo sistemski oblik (S-GCA), a ostali kranijalni (C-GCA). Glavobolja, koja je ujedno patognomonični znak, bila je najčešći inicijalni simptom (88 % za cijelu kohortu, odnosno 97,62 % ako se isključi S-GCA). Od 49 ispitanika za koje imamo podatke, svi imaju ubrzanu sedimentaciju eritrocita. Biopsija temporalne arterije pozitivna je u 12/16 ispitanika s C-GCA, dok je ultrazvuk bio pozitivan također u 12/16 ispitanika. U 18 bolesnika nije rađena ni biopsija ni ultrazvuk, od kojih su 8 bili bolesnici sa S-GCA te o jednom bolesniku nemamo podatake. Niti jednom pacijentu nisu rađeni i biopsija i ultrazvuk. Svi su ispitanici liječeni s glukokortikoidima, 9,80 % ispitanika je uz to liječeno metotreksatom, 7,84 % s tocilizumabom, dok je jedan od ispitanika liječen s metotreksatom i s azatioprinom. ***Zaključak:*** Rezultati su usporedivi s dvama centrima u Hrvatskoj i najmanje jednim inozemnim centrom.

Ključne riječi: arteritis; gigantocelularni arteritis; vaskulitis

[*]**Corresponding author:**
Daniel Victor Šimac, dr. med.
Clinical Hospital Centre Rijeka, Department of Rheumatology and Clinical Immunology
Tome Strižića 3, 51000 Rijeka, Croatia
E-mail: danielsimac@hotmail.com

http://hrcak.srce.hr/medicina

INTRODUCTION

Giant cell arteritis (GCA) is a systemic, immune-mediated vasculitis of the large and medium sized arteries[1]. It is one of the most common types of arteritis among the elderly, with peak incidence between 70 and 80 years old, rarely affecting those under 50[1]. Women are more commonly affected than men, at a ratio of 3:1[2]. Although the aetiology and pathophysiology are not completed explained, it is clear that the disease is characterised by a granulomatous inflammation of artery walls[3].

Giant cell arteritis is a large vessel vasculitis usually presenting in its cranial form with pathognomonic headache. Although presentation is typical and recognisable, symptoms are unspecific and diagnosis is easily missed. Permanent blindness is possible if left untreated, making it crucial for all doctors to be familiar with this disease.

The disease usually presents in its cranial form, also known as temporal arteritis, or less commonly its systemic form, where the large arteries of the head are spared, while others are affected[4]. In 40-50% of patients, the disease develops along side polymialgia rheumatica (PMR), which presents with morning stiffness and tenderness in the muscles of the shoulders and hips[4].

As GCA is a disease of several different manifestations, inexperienced clinicians may miss this diagnosis despite its typical presentation[4]. For most patients, the disease begins with general, non-specific symptoms, such as malaise, fever, night sweats, weight loss, muscle and joint tenderness[1]. These symptoms can be particularly pronounced in 15% of patients, and can develop a couple of weeks before other, more specific symptoms[1, 5]. Headache is the most common symptom, present in 70-90% of patients, and it is important to note that its character should be new or different from other headaches for the patient in question[1]. Other, more specific symptoms depend on the artery affected, and besides headache, may include tenderness of the scalp, jaw claudication, visual disturbances, as well as cognitive impairment[1]. One of the most concerning symptoms is sudden, painless uni- or bilateral vision loss, which can be permanent if not recognised and treated in a timely manner[2].

Diagnosis is usually made based on clinical presentation, lab test results showing elevated inflammatory markers, imaging techniques, and temporal artery biopsy (TAB) for pathohistological analysis as confirmation[1]. In patients with cranial GCA, the temporal artery may be palpated, or its pulse may be weak or absent, while in systemic GCA, bruits may be heard over large, accessible arteries, and arterial blood pressure may be different between extremities[6]. Generally, patients have elevated C-reactive protein (CRP) levels or increased erythrocyte sedimentation rate (ESR) in laboratory (lab) test results, still about 4% of patients, even with a positive TAB, may have normal CRP and ESR[1]. Ultrasound (US) is an effective imaging method for diagnosis, in particular for cranial GCA, where a non-compressible halo can be seen around the blood vessel lumen, considered a positive result[7]. Other methods, like computerised tomography angiography (CTA) and magnetic resonance angiography (MRA), which can show artery wall thickness or lumen changes, or positron emission tomography with computerised tomography (PET-CT), can prove useful for systemic GCA[7, 8]. PET-CT is particularly useful in showing early blood vessel inflammation, although its sensitivity is decreased after treatment with glucocorticoids (GCs) is started[8].

Treatment should be started as soon as possible, that is, as soon as GCA is suspected, to avoid any complications of ischemia[7]. High doses of systemic GCs is considered the standard treatment of GCA, with a starting dose of 1 mg/kg body weight, although pulses of up to 1000 mg per day may be used in some cases[1]. Doses are tapered during follow up, taking into consideration clinical response, and CRP levels and ESR, usually over a period of 12-24 months[1, 7]. If clinical response is poor, or an increased risk for side effects due to high doses or long term use of GCs exists, other options may be considered, including azathioprine (AZA), methotrexate (MTX), or most recently, and with excellent results, tocilizumab (TCZ)[1].

To confirm and possibly add to the current understanding of GCA, this study aims to look at patients diagnosed and treated for GCA in our centre over a 10 year period.

PATIENTS AND METHODS

All patients with a diagnosis of GCA who were diagnosed and treated in our centre, the Clinical Hospital Centre (CHC) Rijeka, at the Department of Internal Medicine, over the last 10 years, from 1 Jan 2011 to 31 Dec 2021, were included in this retrospective study, collecting data on the patient and disease presentation at the initial exam or hospitalisation.

The following data were collected on each patient from the medical documentation available in the computerised intrahospital system, the Intergrated Hospital Informatic System (from Croatian, *Integrirani bolnički informacijski sustav;* IBIS):

- Demographic data: date of birth and gender
- Date of first symptoms
- Duration of symptoms to diagnosis, in weeks

Symptoms and signs of disease:

- Constitutional symptoms: fever, weight loss, fatigue
- Specific symptoms: headache, visual disturbances, blindness, jaw claudication
- Physical signs of temporal artery, if any: palpable thickening, weak pulse, etc.
- Associated PMR, if present or not

Along with this information, it was noted if the disease was primarily cranial or systemic. Selected lab test results were collected, including CRP, ESR. It was noted if a TAB or temporal artery ultrasound (TAUS) were performed, and results, positive halo or other sign or not for ultrasound, and positive pathohistological analysis or not for biospy. A survey of treatment used initially and during follow up was done and noted.

Statistics

Data collected were entered in Microsoft Office Excel 365 spreadsheets, and analysis was done using JASP 0.14.1.0, statistics software. Nominal and ordinal parametres were processed as frequencies (N) and proportions (%), while numerical data, including average duration of symptoms to diagnosis, were processed as average values with standard deviations, and subsequently collected and processed values were further entered into tables and graphs for visual presentation.

RESULTS

During the determined period, at our centre, a total of 58 patients were diagnosed and treated for GCA. A total of 7 patients were excluded as the only data available was gender and date of birth, along with age at onset in 3 patients, and as such, these patients were excluded from further analysis. Although considerable data was missing in 2 patients (in 1 patient clinical presentation was missing, and in 1 patient work up was missing), it was decided to include these patients. A total of 51 patients were included in this study. Looking at basic demographic data collected, 37 (72.55%) of patients were female, 14 (27.45%) were male (Figure 1). The average patient age at disease onset was 73.62± 8.16. The lowest patient age at disease onset was 55, while the highest was 87. Most patients, that is, 37 (72.55%) patients were older than 70, as seen in Figure 2.

Considering the duration of symptoms to diagnosis in our cohort, this data were known for 47 patients, and the average duration of symptoms to diagnosis was 6±4.35 weeks, with a maximum duration of 20 weeks which was the case in 1 patient.

Examining symptoms and signs of GCA, out of 50 patients with available data, systemic disease

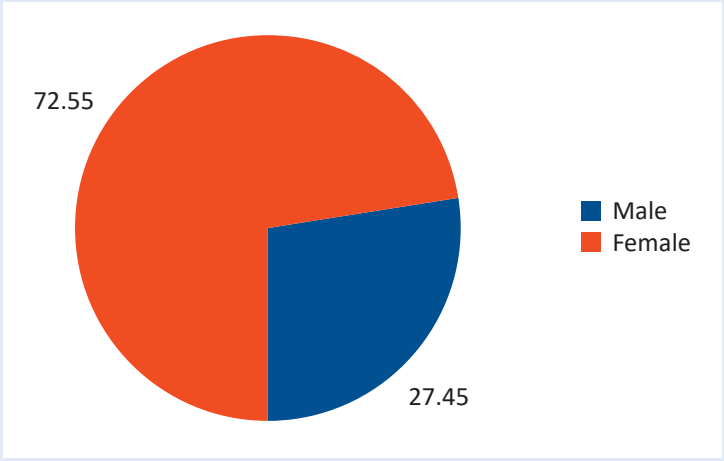

Figure 1. Number of giant cell arteritis patients by gender in patient cohort

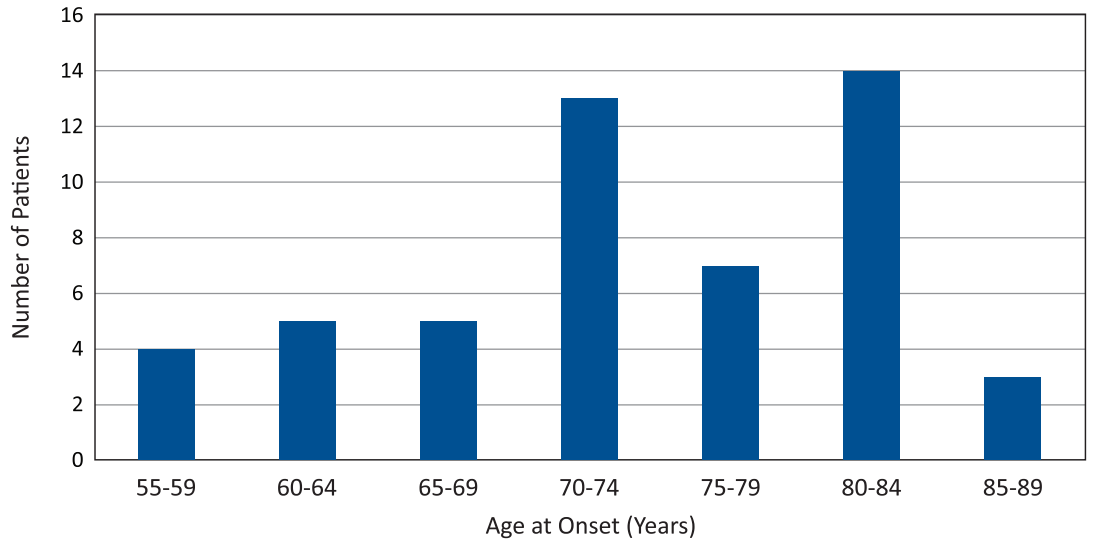

Figure 2. Number of patients versus age at onset of giant cell arteritis in patient cohort

was seen in 8/50 (16.00%) patients. Looking at the whole cohort, headache was the most common symptom seen in 44/50 (88.00%) patients, followed by fever in 30/50 (60.00%) patients. Other symptoms were seen in a smaller number. Physical signs of the temporal artery were present in a total of 13/50 (26.00%) patients, and PMR was seen in 8/50 (16.00%) patients. When patients with systemic disease were excluded, that is, when the focus was placed solely on cranial disease, or temporal arteritis, leaving a total of 42 patients, the frequency of constitutional symptoms did not change significantly, but there is a considerable increase in the rate of headache with 41/42 (97.62%), as well as a decent increase in other specific symptoms (Table 1).

Table 1. Frequency of symptoms and signs of GCA in patient cohort, complete cohort versus corrected cohort without systemic disease patients

Symptom	Complete Cohort[a]			Corrected Cohort[b]		
	Number of Patients	Total Number of Patients[c]	Percentage (%)	Number of Patients	Total Number of Patients[c]	Percentage (%)
Constitutional Symptoms						
Fever	30	50	60.00%	24	42	57.14%
Weight Loss	19	50	38.00%	16	42	38.10%
Fatigue	6	50	12.00%	5	42	11.90%
Specific Symptoms						
Headache	44	50	88.00%	41	42	97.62%
Vision Disturbances	18	50	36.00%	17	42	40.48%
Blindness[d]	5	50	10.00%	5	42	11.90%
Jaw Claudication	18	50	36.00%	18	42	42.86%
TA signs[e]	13	50	26.00%	13	42	30.95%
Associated PMR	8	50	16.00%	7	42	16.67%
Systemic Disease	8	50	16.00%			

[a] Data for all patients in cohort, including both cranial and systemic forms of disease; [b] Data for patients with cranial disease, excluding patients with systemic disease; [c] Total number of patients considered for each symptom with respect to available data; [d] Generally, blindness in one eye, 3/5 were blind in the right eye, 2/5 were blind in the left eye; [e] Physical signs of affected temporal artery: palpable thickening, weak pulse, etc.

TA – temporal artery, PMR – polymialgia rheumatic

Table 2. Laboratory test results at time of diagnosis, for patient cohort, and by gender

	Number of Patients	Average	Standard Deviation	Referent Value
ESR (mm/3,6 ks)	48	92.02	27.78	3 -28[a]
CRP (mg/L)	49	104.13	73.35	< 5

[a] For patients over 50 years of age

ESR – erythrocyte sedimentation rate; CRP – C reactive protein

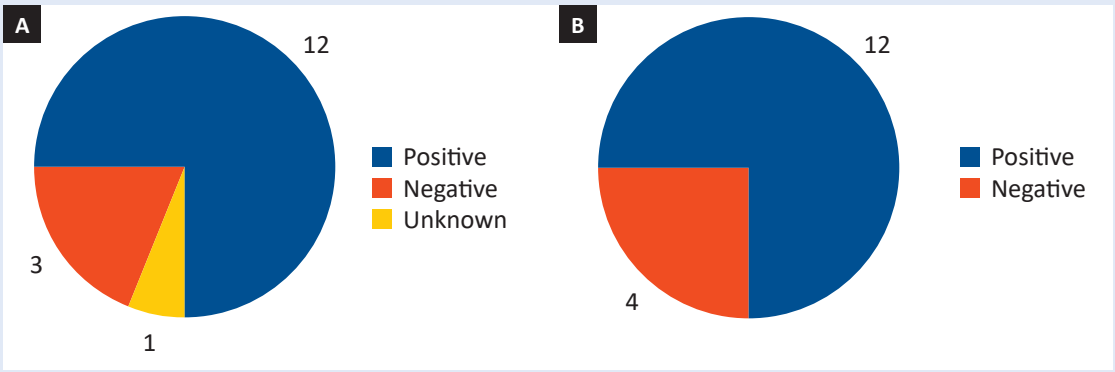

Figure 3. Specific diagnostic test results. A. Results of TAB. B. Results of TAUS. (considering patients with cranial disease only, 42 patients with available data).

Systemic disease was diagnosed using other imaging methods, including PET-CT. Aortitis was described in 2/8 patients, carotid artery was affected in 1/8 patients, subclavian and axillary arteries both in 1/8 patients, and combination of thoracic aorta, subclavian and carotid arteries in 1/8 patients, while 2/8 had unspecified forms.

Moving from clinical signs to lab test results, significantly increased ESR and elevated CRP was observed among all patients with available data (48 and 49 patients, respectively) (Table 2).

Looking at diagnostic tests, out of 42 patients with available data, without systemic disease, again, focusing on temporal arteritis, either TAB or TAUS were performed in 32/42 (76.19%) patients. TAB was performed in 16 patients, and 12/16 had a positive pathohistological analysis, 3/16 were negative, and for 1 patient biopsy results were unavailable. Of 16 patients who had TAUS, 12/16 had positive signs suggestive of GCA, 4/16 did not have any signs (Figure 3). Only 1 patient with systemic disease had TAUS which was positive. No patients had both TAB and TAUS, and as such, comparison in the same patient is not possible. Surveying treatment used in this cohort, all patients were treated with GCs, 41 (80.39%) were treated with GCs only, while 5 patients (9.80%) were also treated with MTX, and 4 (7.84%) with TCZ. Only1 patient (1.96%) was found to be treated with MTX and AZA (not simultaneously).

DISCUSSION

In general, the data collected on the characteristics of giant cell arteritis patients are in line with current understanding of the disease. Firstly, looking at gender, 72.55% of patients were female, making female patients significantly more affected than male patients at a ratio of 1:3. As mentioned earlier, the same ratio was noted by Ling et al. in their paper[2]. It is also noted that age is a significant risk factor, and the disease mostly affects patients over 70, usually no younger than 50, with a peak incidence between 70 and 80 years, and average age of 76.7 years old[2]. Our results are in line with this, our youngest patient being 55, and the majority of patients over 70, a total of 37 (72.55%), and average age of 73.62± 8.16. Similar results are seen in similar Croatian studies, with average ages of 75 and 70 in CHC Split and Clinical Hospital (CH) Dubrava as reported by Perković et al. and Sutić et al., respec-

tively[9, 10]. Looking at a centre abroad, a study by Oztas et al. at the Cerrahpasa Faculty of Medicine, Department of Internal Medicine, Division of Rheumatology at Istanbul University reported a slightly lower average age of 68.4 ± 7.9 (range 49-85)[11]. Predisposition in females is common in several rheumatic diseases, but it is unclear why GCA is primarily seen in elderly females[2]. Familial aggregation has been observed in first degree relatives, suggesting familial predisposition, but the disease is still considered polygenic in nature[2].

The average value for the duration of symptoms to diagnosis in our study was 6 weeks with standard deviation of ± 4.35 weeks, of 47 patients with data. An average duration of symptoms to diagnosis of 2 months was reported by Sutić et al. in CHC Split, which is comparable[10]. The outlier of 20 weeks to diagnosis in our results was an unfortunate case of an older patient who saw a number of specialists with unspecific symptoms, which included an otorhinolaryngologist for neck pain. It wasn't until she developed a fever that GCA was recognised as a possibility after seeing an infectologist, and she was subsequently referred to a rheumatologist. The symptoms were initially milder which is why the patient managed to delay seeing a rheumatologist, which is likely why the condition was not recognised. Although 20 weeks to diagnosis is rather extreme, as mentioned, generally a delay is seen as the diagnosis is easily missed[4].

Most authors consider headache to be the most common symptom in GCA. Younger describes headache as a typical sign in GCA, if not pathognomonic[7], indeed, 88.00% of patients in our study complained of headache as a symptom, of 50 with data, which increases to 97.62% if patients with systemic disease are excluded, which is to be expected looking only at patients with temporal arteritis. In comparison, headache was similarly reported by Perković et al. in 95% of patients, but slightly less, in 70% and 71.4% of patients by Sutić et al. and Oztas et al., respectively[9-11]. It is unclear why headache, that is, why temporal artery affection is most prevalent in this disease, O'Brien and Regan suggested in their paper from 1991 that sun exposure and solar radiation could be to blame, where such radiation over a lifetime affects the elastic tissue of skin, causing elastolysis or actinic aging, and the same process affects superficial arteries, and may invoke a granulomatous response[12]. This may explain the high prevalence among the elderly also. In spite of this, incidence is highest among people of Northern European descent, and conclusions of studies looking at the disease geo-epidemiology are inconsistent regarding location and season of presentation[5].

The most common symptoms that followed headache, out of 50 patients with data, were fever (60.00%) and weight loss (38.00%), which did not change much when excluding systemic disease. This compares to Perković et al. reporting fever in 58% and weight loss in 57% of patients, and Sutić et al. reporting 43% and 60%, respectively[9, 10]. Visual disturbance and jaw claudication tied as the next most common symptom in 36% of patients, which increased when limiting data to temporal arteritis as expected, 40.48% and 42.95% respectively. Visual disturbance rate most closely matched results from CHC Split reported at 44%, while jaw claudication at 26% was considerably less prevalent, as well as visual disturbance and jaw claudication at CH Dubrava, both reported at 13%, and jaw claudication at Cerrahpasa, reported at 13%[9-11]. PMR was found in 16.00% of patients, considerably less than seen by Perković et al. at 49% and Oztas et al. at 27.4%, which are closer to generally accepted values 40 – 50% as claimed by Uppal et al.[7, 9, 11]. However, it is possible this phenomenon was under reported, maybe missed. It should be mentioned that these other studies did not seem to differentiate between cranial and systemic disease, or temporal arteritis, which may also explain the difference in results. Although not speficially mentioned, it seems the focus was on temporal arteritis, which is why it was decided to additionally process our data to exclude systemic patients, for better comparison. Still, variation in our results was most pronounced in this section of the results, regardless of including or excluding systemic patients. However, groups are expected to differ, and this is also the section that most relies on reports, which may be more or less thoroughly written by examining doctors.

Looking at lab test results, that is inflammatory markers, all patients with data had increased ESR (92.02±27.78 mm/3,6 ks) and elevated CRP (104.13±73.35 mg/L), although it should be noted that ESR and CRP are not specific, and normal values should not exclude diagnosis if presentation is highly suggestive of GCA[1]. To reiterate, Perković et al. reports 4% of patients with GCA as confirmed by TAB had normal ESR and CRP values at the time of diagnosis[1]. Sutić et al. reported an average ESR of 83 mm/h[10]. Although TAB remains the gold standard for GCA diagnosis, negative results are possible, in our study 12/16 patients who underwent TAB had positive results out of 42 with available data and without systemic disease[1]. The number of TAB performed in our centre is considerably less than observed by Sutić et. al in their centre, performed in 65% of patients, with 93% of results positive, also higher than in our centre, although our sample is small[10] . Oztas et al. reported performing TAB in 75% of patients, also considerably more than in our centre, with 74.6% of results positive, comparable to our results, although we have a small sample size[11]. When looking at both the number of TAB or TAUS performed in our patients, at 76.19%, this number compares to the rate of TAB in other centres. Imaging, a less invasive method, is becoming crucial for diagnosis, TAUS in particular, which is practical and does not use ionising energy, with a sensitivity of 68% and specificity of 91% according to Younger[7]. Although the sample size is also small, TAUS compared to TAB in our study with 12/16 patients with positive results. An extensive study by Luqmani et al. comparing TAB and TAUS, analysing these results for 381 GCA patients found TAB sensitivity of 39%, specificity of 100%, and TAUS sensitivity of 54%, specificity of 81%, that is, TAB sensitivity inferior to TAUS, but specificity superior, with sensitivity increasing to 65% if TAB was performed for negative TAUS, but specificity maintained, while strategies including clinical assessment showed sensitivity and specificity of 91% and 81%, respectively for TAB, and 93% and 77%, respectively for TAUS[13]. These results, also taking into consideration cost effectiveness, suggests a growing role of ultrasound in diagnosing GCA, and, the possibility of reducing TAB[13], a trend which may already be evident in our centre considering TAB is performed less often in comparison to other centres, but TAUS making up this difference.

It is clear that GCs remain the most effective treatment option as all patients received GCs as treatment, and only a small number received other treatment options, in our case, MTX (9.80%) and AZA (1.96%). The one patient who received MTX and AZA was initially prescribed MTX, then AZA, but both were discontinued as the patient did not tolerate either. TCZ was only used in 4 patients (7.84%), but it is important to keep in mind this is a new expensive drug, for now used only in refractory or high risk cases, but as an effective steroid sparing alternative, the numbers are growing[1]. Sutić et al. had slightly higher numbers, with 35% of patients also receiving MTX and 13% TCZ, with 1 patient receiving leflunomide[10].

Besides typical clinical presentation with high inflammatory markers, diagnosis of temporal arteritis is made with temporal artery biopsy and pathohistological analysis. Temporal artery ultrasound is becoming much more commonplace as it is non-invasive, easily and quickly performed, and possibly just as effective, although further study is required.

It should also be mentioned that a similar study was performed in our centre, looking at patients diagnosed with temporal arteritis between 2003 and 2013, which was published by Šarić et al. in 2014[14]. This means our two studies slightly overlap, and likely included some of the same patients. Although our studies look at similar parametars, a couple of differences are evident. Firstly, Šarić et al. also looked at patients before the introduction of the computerised IBIS, which means this group relied on physical medical documentation, and considering the much lower number of patients included in that study in comparison to this one, 18 versus 51 patients, both of which followed a 10 year period[14], it is possible that patients were missed, considering analysing physical documentation is much more demanding and exhausting, indeed, it was not even at-

tempted by this group. Also, focus was on temporal arteritis, where this study focused on GCA, and looked at both cranial and systemic forms, which is perhaps another reason the number differs. Several of the same parameters were examined, and as in our study, the disease dominated in eldery women, that is, in 15/18 women, average age 73[14]. Looking at signs and symptoms, headache dominated as well, presenting in all patients[14], which is comparable to our result of 97.62% in patients with temporal arteritis. Looking at this same group of patients in our study, fatigue was also more common at 78% vs. 11.90% in our study, fever at 78% vs. 57.14%, visual disturbances at 56% vs. 40.48%, however, jaw claudication and TA signs were almost the same at 39% vs. 42.86% and 27% vs. 30.95%, respectively[14]. Shoulder girdle pain was reported at 39%[14], if this refers to PMR, this is higher than our value at 16.00%, but there is no mention of lower extremities. Increased ESR and elevated CRP were also observed, average 95 mm/3,6 ks and 81 mg/L[14] vs. 92.02 mm/3,6 ks and 104.13 mg/L, respectively, which are comparable results. It is unclear why a number of symptoms are more common in the previous study, the focus on temporal arteritis may explain this difference, apart from limitations of this study as described below. GCs were used in all patients for treatment in both studies[14], and AZA and MTX was also reported as additional treatment in 34% of patients, AZA in 84% of these patients, and MTX in 16%[14]. Our study showed more of a preference for MTX over AZA. Experience with and attitude towards these drugs may have possibly changed over time to create this shift. TCZ was not yet approved for GCA during the first study.

An interesting difference between our studies is the use of TAB or TAUS for diagnosis. Where the older study relied on TAB, done in 89% of patients, 62% of which were positive, TAUS was not reported[14], and likely not yet used, either due to lack of ultrasound equipment or trained personnel. The number of TAB in our study is likely significantly lower due to the introduction of TAUS, which is becoming more routinely done in our centre, as mentioned, covering the difference, and which was performed as often as TAB with a similar rate of positive results. This may be additional evidence of the growing preference for TAUS, and falling out of favour of TAB, at least in our centre.

The study is limited by the information which was available in medical documentation available in the computerised intrahospital system, the Intergrated Hospital Informatic System (from Croatian, *Integrirani bolnički informacijski sustav, IBIS*). Some reports were more detailed than others, and patients were counted as having signs or symptoms if explicitly described. If there was no mention of any signs or symptoms, it was assumed the patient did not have such complaints, but this may have been an oversight by the reporting doctor. This means some symptoms or signs could have been more common than reported herein.

As IBIS was implemented in CHC Rijeka in 2010, some GCA patients diagnosed before this time were still being followed after 2010 and documentation for these patients was further computerised and available in IBIS. As such, we found these GCA patients during our search, and managed to collect some data on them from these follow up reports, namely gender and treatment, but various details were lacking about disease onset and presentation, most likely described in earlier reports which were either written by hand or using a typewriter, and which were not readily or easily retrievable from the hospital archives.

CONCLUSION

Giant cell arteritis is a disease which primarily presents in its cranial form and most commonly affects elderly female patients with headache, fever, visual distrubances, and jaw claudication, which can be diagnosed with temporal artery biopsy or ultrasound, and effectively treated with glucocorticoids, as seen in the results of our study looking at patients diagnosed and treated in our centre. These results are in line and more or less comparable to other centres in Croatia and at least one centre abroad, and with general knowledge and epidemiology of the disease.

Conflicts of Interest: Authors declare no conflicts of interest.

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