DIFFERENT GIANT CELL ARTERITIS PHENOTYPES MAY PRESENT DISTINCT TYPES OF ISCHEMIC COMPLICATIONS

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Background

- The onset of **ischemic complications** (IC) in patients with **giant cell arteritis** (GCA) has been associated with the **cranial GCA phenotype**.
- The progressive use of **imaging techniques** in GCA is expanding the diagnosis of **large vessel (LV) GCA**.
- The **association with this phenotype of** the disease have **not** been fully **described.**

Objectives

To determine if clinical or vascular ultrasound **(US)** findings at the onset of GCA are associated with different types of IC.

Methods

Retrospective observational study.

GCA clinical confirmation patients.

US fast-track clinics of two centers over 4-years.

✓ Baseline US examination of cranial and extracranial arteries.

IC: acute anterior ischemic optic neuropathy (AION) or non-AION (including stroke, acute coronary syndrome, pulmonary embolism or peripheral artery disease) within **3 months** after diagnosis .

- *Chi-squared and analysis of variance were performed to compare epidemiological, clinical characteristics, and US finding according to the presence of IC*

Results

Patient characteristics and US findings according to the presence and type of IC are shown in Table.

	All patients n=188	No ischemic complication n=145 (77.1%)	AION n=24 (12.8%)	Non-AION IC n=19 (10.1%)	p
Demographics					
Age, mean (SD)	78.2 (8.5)	77.7 (8.9)	81.1 (5.8)	78.6 (8.5)	0.183
Female, n (%)	88 (46.8%)	69 (47.6%)	10 (41.7%)	9 (47.4%)	0.864
Clinical variables					
Concomitant PMR symptoms, n (%)	91 (48.4%)	77 (53.1%)	5 (20.8%)	9 (47.4%)	**0.014**
Previous PMR diagnosis, n (%)	53 (28.2%)	45 (31%)	2 (8.3%)	6 (31.6%)	**0.049**
US findings					
Positive US, n (%)	183 (97.3%)	140 (96.6%)	24 (100%)	19 (100%)	0.467
Positive cranial ACG US, n (%)	151 (80.3%)	115 (79.3%)	24 (100%)	12 (63.2%)	**0.009**
Positive isolated cranial ACG US, n (%)	85 (45.2%)	60 (41.4%)	18 (75%)	7 (36.8%)	**0.007**
Positive large vessel-GCA US, n (%)	98 (52.1%)	80 (55.2%)	6 (25%)	12 (63.2%)	**0.014**
Isolated positive large vessel-ACG US, n (%)	32 (17%)	25 (17.2%)	0 (0%)	7 (36.8%)	**0.006**

✓ Patients with *AION* showed *more* frequently findings of *US cranial* vs non-AION IC and without IC (100% vs 63.2% vs 79.3%; **p= 0.009**).

✓ *Less frequently* signs of *US LV-GCA* (25% vs 63.2% vs 55.2%; **p=0.014**), previous polymyalgia rheumatica (*PMR*) (8.3 % vs 31.6% vs 31%; **p=0.049**) or concomitant PMR symptoms at diagnosis vs patients with non-AION IC and without IC (20.8 % vs 47.4% vs 53.1%; **p=0.014**).

✓ Patients with *non-AION* IC presented *more* frequently positive *LV-GCA US* findings vs the other two groups (63.2% vs 25% vs 55.2%; **p=0.014**).

Conclusion

Different GCA phenotypes may present **distinct types of ischemic complications**. Predominantly **US cranial-GCA patients** have more frequently **AION IC**. **US LV-GCA patients** with previous or concomitant PMR have more frequently **non-AION IC**.

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