imaging modalities and potential large vessel (LV) involvement. These new criteria have been validated in an independent set of patients and controls, with a sensitivity of 87.0% and a specificity of 94.8%, but not tested in routine care.

Objectives: Our objective is to examine the performance of the new 2022 ACR/EULAR GCA classification criteria in this clinical scenario.

Methods: Multicentric retrospective observational study of patients referred to our ultrasound (US) fast track clinic over a 4-year period. The gold standard for GCA diagnosis was clinical confirmation after 6 months of follow-up. Patients with GCA were compared with unselected controls referred to our clinic with suspected GCA. All patients underwent US examination of temporal and extracranial arteries (carotid, subclavian, and axillary) within 24-48 hours at baseline.

FDG-PET/CT was performed according to standard clinician criteria. Following the new 2022 ACR/EULAR classification criteria, the total score for the 10 items included in the criteria was calculated, with a total cut-off of 6 for the classification of GCA. The performance of these criteria was evaluated in all GCA patients across different subsets of the disease.

Results: A total of 319 patients (188 cases and 131 controls) were included for analysis (mean age 76 years, 58.9% females). Patients with GCA and controls differed in age (78.2 vs 72.9, p<0.001) and sex (females 53.2% vs 67.2%, p=0.013). The diagnostic accuracy of the 2022 ACR/EULAR GCA classification criteria and the previous 1990 ACR/EULAR classification criteria in different subsets of patients is shown in Table 1. Overall, the new criteria had a sensitivity of 92.6% and a specificity of 74%, using GCA clinical diagnosis as an external criterion and the area under the curve (AUC) was 0.932 (95% CI 0.903 to 0.960). Isolated LV-GCA showed a sensitivity of 62.2% and a specificity of 74% (AUC 0.696 [0.596–0.796]) and biopsy-proven GCA showed a sensitivity of 100% and a specificity of 74% (AUC 0.992 [0.981–1]).

Conclusion: The new 2022 ACR/EULAR GCA classification criteria showed good diagnostic accuracy of patients with suspected GCA under routine care, and a substantial improvement upon the sensitivity and specificity of the 1990 ACR/EULAR GCA classification criteria in all patients subsets.

Table 1. Diagnostic accuracy of the new 2022 ACR/EULAR GCA and the 1990 ACR/EULAR classification criteria, with clinical diagnosis serving as the external criterion in all GCA patients with isolated cranial GCA, isolated LV-GCA, all LV-GCA and biopsy proven GCA. GCA, giant cell arteritis; LV, large vessel; Sens, sensitivity; Spec, specificity; LR+, positive likelihood ratio; LR−, negative likelihood ratio; AUC: area under the ROC curve analysis.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Sens (n = 188) vs controls (n = 131)</th>
<th>LR+</th>
<th>LR−</th>
<th>AUC (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022 ACR/EULAR criteria</td>
<td>92.6% 74%</td>
<td>3.56 0.91</td>
<td>0.932 (0.903)</td>
<td>0.960</td>
</tr>
<tr>
<td>1990 ACR/EULAR criteria</td>
<td>62.2% 74%</td>
<td>3.29 0.51</td>
<td>0.696 (0.596)</td>
<td>0.796</td>
</tr>
<tr>
<td>Isolated cranial GCA (n = 83) vs controls (n = 131)</td>
<td>96.4% 74%</td>
<td>3.71 0.05 0.965 (0.933)</td>
<td>0.996</td>
<td></td>
</tr>
<tr>
<td>LV-GCA (with or without cranial GCA (n = 105) vs control (n=131)</td>
<td>100% 74%</td>
<td>3.85 0.002 0.992 (0.981–1)</td>
<td>0.985</td>
<td></td>
</tr>
<tr>
<td>Biopsy proven GCA (n = 21) vs controls (n = 131)</td>
<td>95.2% 80.2%</td>
<td>4.81 0.06 0.931 (0.877)</td>
<td>0.995</td>
<td></td>
</tr>
</tbody>
</table>

REFERENCES: NIL.

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POS0734 ANALYSIS OF IMPROVEMENT IN GIANT CELL ARTERITIS: DEFINING THRESHOLDS FOR GCA-RESPONSE

Keywords: Outcome measures, Ultrasound, Vasculitis


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Background: Giant cell arteritis (GCA) is a medical emergency due to its risk of severe ischaemic complications such as irreversible blindness [1]. Treatment with systemic glucocorticoids (GC) should be initiated to prevent these complications promptly. However, this can compromise the confirmation of the diagnosis by decreasing the sensitivity of the temporal and axillary artery ultrasound scan (TA and AX US) recommended for GCA diagnosis [1-3]. One possible strategy for managing patients with symptoms suggestive but not typical of GCA, who have an initial negative TA and AX US on GC treatment, is weaning the GC rapidly and performing a second ultrasound off GC, within six weeks of their initial ultrasound. This practice aims to increase the diagnostic yield of the second ultrasound and safely rule out GCA without submitting the patient to unnecessary GC treatment.

Objectives: To assess the safety of repeating a TA and AX US after a rapid GC taper in patients with suggestive but not typical symptoms of GCA and a negative first ultrasound on a high dose GCs.

Methods: This is a retrospective study that included patients with suspected GCA referred to the Rheumatology department at Nuffield Orthopaedic Centre - Oxford, from Oct 2020 to June 2022. The inclusion criteria were: i) negative first TA and AX US while on treatment with GCs ≥30mg/d; ii) first ultrasound performed at least 6 months prior to the data collection; iii) second ultrasound performed within 6 weeks of the first one. The TA and AX US was considered positive when a non-compressible halo sign was present. Data regarding patient demographics, clinical manifestations, treatment, and outcomes was collected using Electronic Patient Records (EPR). The patients' records were also reviewed to check for any subsequent diagnosis of large vessel vasculitis (LVV) within 6 months of the first TA and AX US.

Results: Twenty-nine patients were included, 19/29 (65.5%) were females and the median age at the time of the referral was 65 (range 51-87). The most frequent clinical manifestation at presentation was temporal headache in 23/29 (79.3%) patients, followed by scalp tenderness in 18/29 (62.3%) and visual disturbance in 15/29 (51.7%). Patients were on GC treatment for a median duration of 10 days (range 3-35) with a median cumulative dose of 480mg (range 120–1400mg). All patients were on high doses of GCs, of whom 8/29 (27.6%) were on 60mg of prednisolone, 2/29 (6.9%) on 50mg, 17/29 (58.6%) on 40mg and 2/29 (6.9%) on 30mg. GCs were weaned on an average of 12 days (range 0-28). The second ultrasound was performed after stopping GC treatment for a median of 11 days (range 3-30) and the median interval between the two scans was 23 days (range 6-42). Regarding the second ultrasound, 28/29 (96.5%) patients had a negative and 1/29 (3.4%) had a positive TA and AX US. Moreover, 2/29 (6.9%) patients were found to have LVV on subsequent Position Emission Tomography (PET) scans that were requested due to clinical suspicion of extra-cranial GCA.

Conclusion: This study shows that for patients presenting with symptoms suggestive but not typical of GCA, who were already on GC treatment, rapid taper of GCs and a negative second TA and AX US safely ruled out GCA in 26/29 (89.6%) patients. Although more studies are needed to confirm these preliminary results, this practice should maintain a good diagnostic ability but prevent unnecessary GC toxicity.

REFERENCES:


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Disclosure of Interests: None Declared.

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