Survival Predictors Identified in Patients With Biopsy-Proven Giant Cell Arteritis

Polymyalgia rheumatica at diagnosis of GCA limited to the adventitia at temporal artery biopsy identified subsets of patients with more benign disease. *Credit:Biophoto Associates/Science Source*

In patients with biopsy-proven giant cell arteritis (GCA), [**polymyalgia rheumatica**](https://www.rheumatologyadvisor.com/research/comorbidity-prevalence-in-polymyalgia-rheumatica/article/822056/)(PMR) at diagnosis and inflammation limited to adventitia or vasa vasorum vasculitis identify subsets of individuals with more benign disease, whereas large-vessel involvement is associated with reduced survival, according to the results of a population-based retrospective study published in *Rheumatology*.

The investigators sought to evaluate the influence of treatment outcomes and disease-related findings on survival in a population-based cohort of patients with incident biopsy-proven GCA.  A total of 281 patients with incident temporal artery biopsy (TAB)-proven GCA were finally entered in the inception study cohort. The researchers analyzed the following: clinical, imaging, and laboratory findings at GCA diagnosis; pathologic patterns of TAB; effect of traditional cardiovascular risk factors as predictors of survival; and corticosteroid treatment and therapeutic outcomes.

According to univariate analysis, increased mortality was significantly linked to large-vessel involvement at diagnosis (hazard ratio [HR], 5.84; 95% CI, 1.57-21.8; *P*=.009), whereas reduced mortality was significantly associated with female gender (HR, 0.66; 95% CI, 0.45-0.98; *P*=.040); PMR (HR, 0.54; 95% CI, 0.37-0.79; *P*=.002); long-term remission (HR, 0.47; 95% CI, 0.26-0.86; *P*=.015); higher hemoglobin levels at diagnosis (HR, 0.84; 95% CI, 0.74-0.96; *P*=.011); and inflammation limited to the adventitia or to the adventitial vasa vasorum at TAB examination (HR, 0.48; 95% CI, 0.24-0.97; *P*=.041).

Multivariate analysis demonstrated a significant association between increased mortality and large-vessel involvement at diagnosis (HR, 5.14; 95% CI, 0.37-0.86; *P*=.008), between reduced mortality and PMR at diagnosis (HR, 0.57; 95% CI, 0.37-0.86; *P*=.008), and between reduced mortality and advential inflammation at TAB (HR, 0.31; 95% CI, 0.14-0.70; *P*=.005).

The investigators concluded that long-term remission in patients with GCA is associated with reduced mortality, which suggests the efficacy of controlling inflammation in this population.

**Reference**

Macchioni P, Boiardi L, Muratore F, et al. [**Survival predictors in biopsy-proven giant cell arteritis: a northern Italian population-based study [published online December 4, 2018].**](https://academic.oup.com/rheumatology/advance-article-abstract/doi/10.1093/rheumatology/key325/5230886?redirectedFrom=fulltext)*Rheumatology (Oxford)*.  doi:10.1093/rheumatology/key325