

## Epidemiology of GCA in Turkey, unmet needs, and what to do?

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Giant cell arteritis (GCA) is a large-cell vasculitis involving mainly the cranial branches of the aorta. It is the most common type of primary vasculitis in Western countries. The female to male ratio is approximately 3:1. Predominantly occurs in patients older than 50 years of age; the peak age of incidence is about 80. Incidence is highly variable according to latitude, ranging from 1 to 76 per 100000 people. With increasing latitude, the risk of GCA tends to increase; Scandinavian countries and North America have the highest reported incidence rates. The incidence may vary according to case definition (biopsy-proven, imaging, or clinical). In recent years, the incidence of biopsy-proven GCA has been decreasing. Data regarding prevalence is limited, and case definition is also variable across studies. In North America and Scandinavia, the prevalence is about 200-250 per 100000 people; it is low in the far East- about 1-2 per 100,000 people. The etiology of GCA is unknown. Obesity, diabetes, respiratory system infections, smoking, and seasonal variability seem to have a role in pathogenesis.

Polymyalgia rheumatica (PMR) is characterized by pain and stiffness in proximal muscles – shoulders and pelvic girdle -and elevated acute phase response. Incidence is higher in females and increases after 50, and the peak age is about 70-80. Similar to GCA, the incidence is higher in North America and Scandinavia (50-70 per 100000 people) than in Southern Europe (12-17 per 100000 people). Parallel to incidence, prevalence is also higher in North America and Scandinavia (700-900 per 100000 people). Co-occurrence of PMR and GCA is present in about 30-40% of patients. HLA-DRB1\*04 is an essential predictor of this co-occurrence.

Up to now, there is only one epidemiological study published from Turkey. This study was a hospital-based study from Edirne. Incidence of GCA and PMR was higher in females, 1.13 per 100000 people for GCA and 3.15 per 100000 people for PMR. Prevalence of GCA was reported as 20 per 100000 people, which is much lower than in North America and Scandinavia. However, this study has several limitations; it represents only one region of Turkey, hospital-based, conducted in a 3rd-step hospital, and has low generalizability. We need more precise, generalizable, population-based studies to better understand GCA and PMR in Turkey.

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