

Increase in giant cell arteritis associated with peaks in COVID-19 prevalence

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Giant cell arteritis (GCA) is an inflammatory disease that affects the arteries, often causing headaches, jaw pain, and vision problems. The precise cause is not known, but infection is thought to play a role.

Immediately following the first wave of the COVID-19 pandemic, the number of GCA diagnoses noticeably increased at the Royal National Hospital for Rheumatic Diseases in Bath, United Kingdom (UK). Furthermore, there was an increase in the proportion of patients with visual complications. The finding is important for understanding the underlying disease mechanisms in GCA, and supports the idea that viral infection could be involved. It also has implications for the provision of local services.

Ben Mulhearn and colleagues estimated the incidence of GCA seen during the COVID-19 pandemic and compared it to data from 2019, before the pandemic hit. The two distinct peaks of COVID-19 reflected by UK hospital admissions of COVID-19-positive patients allowed the authors to investigate the relationship in time between COVID-19 and GCA incidence.

At the Royal National Hospital for Rheumatic Diseases in Bath, UK, there were 61 probable or definite GCA diagnoses made in 2020 compared to 28 in 2019- representing an excess of 33 cases in 2020, or an increase of 118%. Taking into account the fact that 41% of the hospital's catchment population is over the age of 50, this equates to an annual incidence rate of 13.7 per 100,000 in 2019 and 29.8 per 100,000 in 2020. The previously estimated regional incidence rate for South West of the UK was 21.6 per 100,000.

The significantly increased incidence of GCA may be the result of widespread infection in the local population, with SARS-CoV-2 as a driving factor. Possible mechanisms include, but are not limited to, endothelial disruption by the virus, immune system priming towards T helper cell type-1 cellular immunity, and activation of the monocyte-macrophage system. More work is underway to assess the [causal relationship](#) between the two diseases, and it may be important to monitor the number of referrals for GCA as the pandemic continues.

Provided by European Alliance of Associations for Rheumatology

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