Media backgrounder

Giant Cell Arteritis: what you need to know

Fast facts

- Giant cell arteritis (GCA) is a serious and difficult to diagnose autoimmune condition. The disease causes arteries, usually in the head but also the aorta and its branches, to become inflamed.[1]
- This inflammation can lead to headache, scalp tenderness, jaw pain, arm pain and if untreated, blindness, stroke or aortic aneurysm.[2]
- GCA has a global impact and usually affects those above the age of 50. It is 2-3 times more likely to affect women.[3]
- With no new treatments in more than 50 years, patients are limited to steroid treatment that cause side effects that can severely impact their lives.[4]
- GCA is difficult to diagnose because of a wide and variable spectrum of signs and symptoms.

Epidemiology

- In the U.S., GCA is estimated to affect more than 200 per 100,000 people over the age of 50, yet the condition is relatively unknown.
- GCA is reported to occur even more frequently in northern Europe.[6]

Pathophysiology

- GCA is characterised by inflammation in artery walls.[7,8]
- GCA is thought to begin when immune cells called T cells and macrophages infiltrate the artery wall. Macrophages may group together to form 'giant cells'.[7,8] These cells produce chemical signals, including IL-6 which are responsible for inflammation of the artery wall.[7,8]
- In response to the inflammation, the artery wall becomes broken down and disorganised leading to narrowing and blockage of the artery; this can result in decreased blood supply that causes blindness and stroke.[7]

Signs & symptoms

- Inflammation can lead to persistent and severe headache, the most common symptom in GCA. Other symptoms include scalp pain, jaw pain while chewing and arm or leg pain.[2]
- Other so-called constitutional symptoms, including weight loss, fever and muscle pain, are also common.[2]
- Vision loss occurs in more than 30% of patients.[2]

Urgency to treat

- GCA represents a medical emergency due to risk of blindness.[9]
- Permanent visual loss affects ~15% of patients. Once visual loss is established, it is almost always permanent.[9]
- Prompt diagnosis is crucial because blindness can be prevented by early intervention with steroids. However, because GCA has varied signs and symptoms, diagnosis can be difficult and delayed.[3]

Available treatments

- GCA is managed using high doses of steroids over a prolonged period of time.
- Although they are associated with long-term complications, they are effective at controlling systemic inflammation and preventing vision loss and have been the mainstay GCA therapy for the past 50 years.[4] However, steroid treatment generally fails to cure GCA or induce long-term steroid-free remissions.
- Great strides are being made in our understanding of GCA, and how to best help people with this debilitating condition.
- Current research suggests there is an increase in IL-6, a protein that plays a fundamental role in inflammation, in people with GCA. It is thought that blocking IL-6 can decrease the inflammation of blood vessels in GCA[10,11]

Impact of steroids

- Around 80% of GCA patients will experience steroid (glucocorticoid) related side effects e.g. cataracts, diabetes, fractures, high blood pressure, bowel bleeding and infection.[4]
- The high risk of steroid related adverse events (AEs) and impact on quality of life means that optimised steroid use is a key treatment goal.

The unmet need

- With no new medicines in half a century, GCA patients are in great need of new, more efficacious and more tolerable treatment options.

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Date of prep: May 2016

Job code: NP/ACTE/1605/0007

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