

Giant cell arteritis: Unveiling the mystery behind a silent threat.

Barbara Zand*

Department of Ophthalmology, Iran University of Medical Sciences, Tehran, Iran

Introduction

Giant Cell Arteritis (GCA), also known as temporal arteritis or Horton's disease, is a complex and potentially debilitating inflammatory condition that primarily affects medium and large arteries. This condition is most commonly observed in individuals over the age of 50, with a higher incidence in women. GCA can lead to serious complications, including blindness, making its diagnosis and management crucial. In this article, we will delve into the intricacies of Giant Cell Arteritis, exploring its causes, symptoms, diagnosis, treatment and the importance of early intervention.

Causes and risk factors

The exact cause of Giant Cell Arteritis remains unknown, but it is believed to involve a combination of genetic and environmental factors. The immune system's role is central, as the condition is characterized by an inflammatory response within the blood vessel walls. Genetic predisposition and certain infections have been suggested as potential triggers, but further research is needed to pinpoint the exact mechanisms. Advanced age is a significant risk factor for GCA, with the majority of cases occurring in individuals over 50. Women are also more susceptible than men. Other risk factors include a history of polymyalgia rheumatic, another inflammatory disorder and a family history of GCA [1].

Symptoms and clinical presentation

GCA presents with a wide range of symptoms, some of which can be non-specific, leading to diagnostic challenges. The most common symptom is a severe, throbbing headache, often located around the temples. Other symptoms may include scalp tenderness, jaw pain while chewing, fatigue, weight loss and fever. Vision-related symptoms are particularly concerning, as GCA can lead to permanent vision loss if left untreated. These symptoms may manifest as blurry vision, double vision, or sudden, painless vision loss in one eye [2].

Diagnosis and differential diagnosis

Diagnosing GCA requires a combination of clinical evaluation, imaging studies and laboratory tests. One key diagnostic tool is the temporal artery biopsy, which involves removing a small section of the temporal artery and examining it for inflammation. This procedure helps confirm the presence of giant cells, which are indicative of the condition. Laboratory tests can also provide valuable insights. Elevated levels of C-reactive protein and Erythrocyte sedimentation Rate (ESR) are

common findings in GCA patients, indicating an inflammatory response. These tests, however, are not definitive and must be considered alongside other clinical factors.

Differential diagnosis is crucial due to the overlapping symptoms with other conditions, such as infections, rheumatoid arthritis and even certain malignancies. A thorough evaluation by a qualified healthcare professional is essential to differentiate GCA from other potential causes [3].

Treatment and Management

Timely treatment is of paramount importance in managing GCA and preventing complications. Corticosteroids, such as prednisone, are the primary treatment option. They effectively reduce inflammation and help alleviate symptoms. However, long-term corticosteroid use can lead to a range of side effects, including osteoporosis, diabetes, and hypertension. Therefore, finding the lowest effective dose is crucial to minimize these risks [4].

In some cases, immunosuppressive medications may be considered alongside corticosteroids to enable steroid dose reduction. These medications, such as methotrexate or tocilizumab, can help maintain disease control while reducing the reliance on high doses of corticosteroids. Regular monitoring is essential to track disease progression and assess the effectiveness of treatment. In cases of vision-related symptoms, immediate medical attention is vital to prevent irreversible damage [5].

Conclusion

Giant Cell Arteritis is a complex inflammatory condition that primarily affects medium and large arteries, often targeting the temporal arteries. While its exact cause remains unclear, early diagnosis and proper management are essential to prevent severe complications, including blindness. Recognizing the characteristic symptoms, conducting thorough diagnostic evaluations, and implementing timely treatment strategies are vital steps in ensuring the well-being and quality of life of individuals affected by GCA. As researchers continue to unravel the mysteries surrounding this condition, advancements in understanding its mechanisms and developing targeted therapies hold promise for improved outcomes and a brighter future for those living with Giant Cell Arteritis.

References

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*Correspondence to: Barbara Zand, Department of Ophthalmology, Iran University of Medical Sciences, Tehran, Iran, E mail: zandbar@yahoo.com

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