

Introduction

Giant cell arteritis (GCA), also known as temporal arteritis, is a type of vasculitis that primarily affects the large and medium-sized arteries, particularly the branches of the carotid artery. It is characterized by inflammation of the vessel walls, which can lead to serious complications such as vision loss, stroke, and aortic aneurysms.

This condition predominantly affects individuals over the age of 50, with a higher prevalence in women compared to men. Understanding the pathophysiology, clinical manifestations, diagnosis, and treatment of GCA is crucial for effective management and prevention of complications. The etiology of GCA remains largely idiopathic, though it is thought to involve a complex interplay of genetic predisposition and environmental triggers, such as infections or other inflammatory conditions. The precise mechanism is not fully understood; however, it is believed that an autoimmune response leads to the activation of the immune system, resulting in an inflammatory cascade that targets the arterial walls. This inflammation can cause ischemia and necrosis of the tissues supplied by the affected arteries, leading to severe complications. Clinically, GCA presents with a range of symptoms, most notably a new-onset headache that is often described as severe and throbbing. Patients may also experience scalp tenderness, jaw claudication, and

for side effects of therapy, disease activity, and potential complications, including vision loss [9].

Complications

If left untreated, giant cell arteritis can lead to serious complications, primarily related to aortic ischemia. These include:

Permanent Vision Loss: Approximately 15-20% of patients may experience permanent vision loss if GCA is not treated promptly.

Aortic Aneurysm: Involvement of the aorta can lead to aneurysm formation and potential rupture.

Stroke: Vascular occlusion can increase the risk of cerebrovascular accidents [10].

Conclusion

Giant cell arteritis is a serious condition that requires prompt recognition and treatment to prevent life-altering complications. Clinicians should maintain a high index of suspicion in older adults presenting with new headaches, visual disturbances, or systemic symptoms. Early initiation of corticosteroid therapy, coupled with appropriate monitoring and follow-up, is essential for optimal patient outcomes. As research continues to evolve, new therapeutic options may further improve the management of this complex condition. The cornerstone of GCA management is high-dose corticosteroids, which effectively reduce inflammation and prevent complications. In cases