Perspective
Volume 7:5, 2023

Journal of Interventional and General Cardiology

ISSN: 2684-4591 Open Access

Chronic Rheumatologic Disorder Increased Risk of Cardiovascular Disease

Michalis Hamilos*

Department of Cardiology, University of Crete, Heraklion, Greece

Introduction

Chronic rheumatologic disorders encompass a group of autoimmune and inflammatory conditions that predominantly affect the musculoskeletal system. While the primary symptoms of these disorders involve joints, they can also have far-reaching effects on other organ systems, including the cardiovascular system. Cardiovascular disease is a leading cause of morbidity and mortality worldwide, and emerging evidence suggests that women with chronic rheumatologic disorders may be at an increased risk of CVD. In this article, we will explore the complex relationship between chronic rheumatologic disorders and cardiovascular disease risk in women, considering underlying mechanisms, risk factors, and strategies for prevention and management. RA is an autoimmune disorder characterized by chronic joint inflammation, leading to joint damage and deformities. It primarily affects the synovium, the lining of the membranes that surround joints. SLE is a multisystem autoimmune disease that can affect various organs and tissues, including the skin, joints, kidneys, heart, lungs, and brain. SSc, also known as scleroderma, is characterized by abnormal growth of connective tissue, leading to skin thickening and fibrosis in various organs, including the heart and blood vessels. Cardiovascular disease encompasses a range of conditions that affect the heart and blood vessels, including coronary artery disease, heart failure, stroke, and peripheral artery disease. It is a leading cause of death in women worldwide, and its impact is particularly pronounced in postmenopausal women. In women, CVD often presents differently than in men and may be underdiagnosed and undertreated.

Description

Common risk factors for CVD in women include age, hypertension, diabetes, dyslipidemia, obesity and smoking. Inflammatory processes are central to the pathogenesis of rheumatologic disorders. The persistent inflammation seen in conditions like RA and SLE can contribute to endothelial dysfunction, atherosclerosis, and plaque formation in blood vessels. Autoantibodies and immune complexes associated with these disorders can promote inflammation and vascular damage, leading to increased cardiovascular risk. Patients with rheumatologic disorders may have an increased prevalence of traditional cardiovascular risk factors, such as hypertension, dyslipidemia, and obesity, which further elevate their cardiovascular risk. Some medications used to manage chronic rheumatologic disorders, such as corticosteroids, can have adverse effects on blood pressure, lipid profiles, and glucose metabolism, contributing to cardiovascular risk. Pain and joint stiffness associated with these conditions can lead to reduced physical activity, increasing the risk of obesity and metabolic abnormalities. Healthcare providers should assess traditional cardiovascular risk factors, such as blood pressure, lipid profiles, blood glucose, and body mass index, in women with these conditions. Monitoring markers of inflammation, such as high-sensitivity C-reactive protein and erythrocyte sedimentation rate can help identify individuals at higher cardiovascular risk. Specific autoantibodies, such as anti-phospholipid antibodies in SLE, may be associated with an increased risk of cardiovascular events and thrombosis [1].

Non-invasive imaging studies, such as carotid ultrasound and coronary artery calcium scoring, can assess subclinical atherosclerosis and guide treatment decisions. Healthcare providers should carefully evaluate and manage medications used to treat rheumatologic disorders, taking into account their potential cardiovascular effects. Aggressively managing inflammation through disease-modifying anti-rheumatic drugs and biologics is essential to reduce cardiovascular risk. Addressing traditional cardiovascular risk factors, such as hypertension, dyslipidemia, and obesity, through lifestyle modifications and medications is critical. Encouraging regular physical activity tailored to individual capabilities can help improve cardiovascular health and reduce the risk of obesity. Promoting a heart-healthy diet rich in fruits, vegetables, whole grains, and lean proteins while minimizing saturated fats, trans fats and added sugars is important. Smoking is a significant cardiovascular risk factor. Support and resources for smoking cessation should be offered to those who smoke. In some cases, cardiovascular medications, such as statins and anti-hypertensive agents, may be indicated to manage specific risk factors. Patients with chronic rheumatologic disorders should have regular cardiovascular risk assessments and monitoring of inflammatory markers. The complex interplay of chronic inflammation, autoimmune processes, traditional cardiovascular risk factors, and potential medication-related factors underscores the importance of comprehensive cardiovascular risk assessment and management in this patient population. By adopting a holistic approach that includes lifestyle modifications, pharmacological interventions, inflammatory control and regular cardiovascular assessment, healthcare providers can mitigate cardiovascular risk [2].

Ongoing research is essential to better understand the mechanisms underlying the increased cardiovascular risk in women with chronic rheumatologic disorders and to develop targeted interventions. Identifying novel biomarkers associated with cardiovascular risk in these patients may lead to more accurate risk assessment and personalized treatment approaches. Treatment Optimization: Research is ongoing to determine the most effective treatment strategies that balance disease control with cardiovascular risk reduction. Empowering patients with knowledge about their increased cardiovascular risk and the importance of risk factor management is a critical area of focus. Collaborative decision-making between patients and healthcare providers is essential to tailor treatment plans to individual needs and preferences. Chronic rheumatologic disorders can significantly impact cardiovascular health in women. The interplay between chronic inflammation, autoimmune mechanisms, traditional cardiovascular risk factors, medications, and physical inactivity contributes to an increased risk of cardiovascular disease. Proactive assessment of cardiovascular risk and the implementation of prevention and management strategies are crucial to reduce the burden of CVD in this population. Through ongoing research and a multidisciplinary approach to care, healthcare providers can better understand, address, and mitigate the cardiovascular risks associated with chronic rheumatologic disorders, ultimately improving the health and well-being of affected women. Chronic rheumatologic disorders, a group of autoimmune and inflammatory conditions that primarily affect the joints and connective tissues, have been associated with an increased risk of cardiovascular disease in women [3].

***Address for Correspondence:** Michalis Hamilos, Department of Cardiology, University of Crete, Heraklion, Greece, E-mail: Michalishamilos5@gmail.com*

Received: 01 September, 2023, Manuscript No. jigc-23-116485; **Editor assigned:** 04 September, 2023, PreQC No. P-116485; **Reviewed:** 14 September, 2023, QC No. Q-116485; **Revised:** 19 September, 2023, Manuscript No. R-116485; **Published:** 26 September, 2023, DOI: 10.37421/2684-4591.2023.7.205

These disorders include rheumatoid arthritis systemic lupus erythematosus systemic sclerosis and Sjögren's syndrome, among others. The link between rheumatologic disorders and CVD in women is a complex interplay of autoimmune inflammation, traditional cardiovascular risk factors, and potential treatment-related factors. In this article, we will explore the relationship between chronic rheumatologic disorders and cardiovascular disease risk in women, including the underlying mechanisms, risk factors and strategies for prevention and management. Autoimmune rheumatologic disorders are characterized by an overactive immune response that leads to chronic inflammation and tissue damage. This chronic inflammation can extend beyond the joints and affect various organs and systems, including the cardiovascular system. The association between these disorders and CVD has garnered increasing attention due to the significant morbidity and mortality associated with both conditions. Women with RA have a higher risk of developing CVD compared to the general female population. Although CVD risk in Sjögren's syndrome is less well-established than in RA or SLE, emerging evidence suggests an increased risk. Chronic Inflammation: Persistent systemic inflammation is a hallmark of these conditions and promotes atherosclerosis and plaque instability, increasing the risk of cardiovascular events. Dysregulated immune responses in autoimmune disorders can lead to the production of autoantibodies that contribute to endothelial dysfunction, a key event in atherosclerosis. Chronic rheumatologic disorders often coexist with traditional cardiovascular risk factors, such as hypertension, dyslipidemia, obesity and diabetes. These factors synergistically increase CVD risk [4].

Some medications used to manage autoimmune diseases, such as glucocorticoids and certain disease-modifying antirheumatic drugs can have adverse effects on cardiovascular health. For example, long-term use of glucocorticoids can lead to hypertension and dyslipidemia. Assessing cardiovascular disease risk in women with chronic rheumatologic disorders requires a comprehensive approach. Clinicians should evaluate and manage traditional cardiovascular risk factors, including blood pressure, lipid profile, body mass index and glucose metabolism. Disease activity markers, such as the Disease Activity in RA or the Systemic Lupus Erythematosus Disease Activity Index in SLE, should be monitored and managed to reduce inflammation. Specific autoantibodies, such as anti-citrullinated protein antibodies in RA or anti-phospholipid antibodies in SLE, can be associated with increased cardiovascular risk. Cardiovascular imaging, including echocardiography, carotid ultrasound, and coronary artery calcium scoring, can help assess subclinical atherosclerosis and guide treatment decisions. Evaluate and adjust medications, particularly glucocorticoids and DMARDs, to minimize potential cardiovascular risks. Encourage a heart-healthy lifestyle, including regular exercise, a balanced diet, smoking cessation, and stress management. These lifestyle changes are essential in both preventing and managing CVD. Depending on cardiovascular risk factors and disease activity, healthcare providers may prescribe medications to manage hypertension, dyslipidemia, and diabetes. Antiplatelet therapy may be considered in certain cases. Achieve and maintain disease remission or low disease activity through targeted immunosuppressive treatments, including biologic agents and non-biologic DMARDs. These medications can reduce inflammation and lower cardiovascular risk. Aspirin therapy may be considered in high-risk individuals with chronic rheumatologic disorders and a history of cardiovascular events. However, its use should be carefully evaluated and tailored to the patient's specific risk profile [5].

Conclusion

Routine cardiovascular risk assessment, including monitoring blood pressure, lipids, and glucose levels, should be integrated into the ongoing care of women with these disorders. Empower patients with information about their increased cardiovascular risk and the importance of adhering to treatment plans and lifestyle modifications. Chronic rheumatologic disorders vary in their clinical manifestations and severity, making it challenging to generalize CVD risk across all patients. Tailoring risk assessment and management to individual patient profiles is crucial. Some rheumatologic disorders, such as Sjögren's syndrome, have less robust evidence regarding their association with CVD. More research is needed to fully understand the cardiovascular risk in these conditions. Balancing the need for disease control with the potential cardiovascular risks of certain medications can pose clinical dilemmas. Research into safer and more effective treatments is ongoing. Managing cardiovascular risk in patients with chronic rheumatologic disorders often requires collaboration between rheumatologists, cardiologists, and other specialists to ensure comprehensive care. Encouraging and supporting patients in making lifestyle changes and adhering to treatment plans can be challenging but is essential for reducing cardiovascular risk. Chronic rheumatologic disorders, which disproportionately affect women, are associated with an increased risk of cardiovascular disease.

Acknowledgement

None.

Conflict of Interest

None.

References

1. Nembhard, Wendy N, Ping Xu, Mary K. Ethen and David E. Fixler, et al. "Racial/ethnic disparities in timing of death during childhood among children with congenital heart defects." *Birth Defects Res A Clin Mol Teratol* 97 (2013): 628-640.
2. Vlachopoulos, Charalambos, Konstantinos Aznaouridis and Christodoulos Stefanadis. "Prediction of cardiovascular events and all-cause mortality with arterial stiffness: A systematic review and meta-analysis." *J Am Coll Cardiol* 55 (2010): 1318-1327.
3. Mahmud, Azra and John Feely. "Acute effect of caffeine on arterial stiffness and aortic pressure waveform." *Hypertension* 38 (2001): 227-231.
4. Backes, Carl H., Clifford Cua, Jacqueline Kreutzer and Laurie Armsby, et al. "Low weight as an independent risk factor for adverse events during cardiac catheterization of infants." *Catheter Cardiovasc Interv* 82 (2013): 786-794.
5. Nembhard, Wendy N., Ping Xu, Mary K. Ethen and David E. Fixler, et al. "Racial/ethnic disparities in timing of death during childhood among children with congenital heart defects." *Birth Defects Res Part A Clin Mol Teratol* 97(2013): 628-640.

How to cite this article: Hamilos, Michalis. "Chronic Rheumatologic Disorder Increased Risk of Cardiovascular Disease." *J Interv Gen Cardiol* 7 (2023): 205.