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How to Manage Cardiovascular Disease in Psoriatic Disease: Evidence and Time Management in Clinic

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ABSTRACT. Early recognition and appropriate management of cardiovascular (CV) disease (CVD) in patients with psoriatic disease (PsD) is critical for prevention of early morbidity and mortality. PsD and CVD share common pathogenic mechanisms, including upregulation of proinflammatory cytokines like tumor necrosis factor. Potential CV comorbidities should be assessed in all patients with PsD through clinical history, risk factor assessment (eg, diabetes, hypertension, dyslipidemia), blood tests, and imaging, when required. Collaboration with the patient's primary care physician is essential, offering preventive measures such as healthy lifestyle advice (eg, diet, exercise, weight loss, smoking and drinking cessation). Management of comorbid conditions requires a multidisciplinary setting of family doctors, internists, cardiologists, dermatologists, and rheumatologists. Treating psoriatic arthritis and psoriasis to remission is recommended; however, the data on CVD risk modification remain inconclusive, necessitating further studies. Thus, routine CVD assessment and management should be provided to patients with PsD, despite practical difficulties such as clinical time constraints and lack of support staff. The evidence and experiences of a dermatologist and rheumatologist assessing and managing CVD in clinic were presented at the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) 2024 annual meeting.

Key Indexing Terms: cardiovascular diseases, GRAPPA, heart disease risk factors, psoriasis, psoriatic arthritis

Introduction

Psoriasis (PsO) and psoriatic arthritis (PsA) are associated with a higher risk of cardiovascular (CV) disease (CVD) compared to the general population.[1-3] Therefore, it is recommended to identify and manage CV comorbidities in patients with psoriatic disease (PsD), which can be challenging due to time constraints in a busy clinic. During the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) 2024 annual meeting, Drs. Claudia Schainberg and Cheryl Rosen presented the perspectives of a dermatologist and rheumatologist, respectively, on managing CVD in the clinic.

Rheumatologists' perspective on CV comorbidities in PsA

PsA and atherosclerosis share common pathogenic mechanisms.[3] PsA pathogenesis involves genetic and environmental factors, proinflammatory immune cell activation, and cytokine release, leading to synovitis, enthesitis, erosions, and skin lesions.[4] This inflammatory response also induces insulin resistance and lipolysis, while the liver releases procoagulant factors that contribute to endothelial dysfunction and accelerated atherosclerosis.[3] Additionally, patients with PsA present a higher prevalence of traditional CVD risk factors, such as obesity, hypertension, dyslipidemia, and metabolic syndrome, compared to the general population.[5,6] The association between PsA and CVD is evident, though the exact causal relationship remains to be fully elucidated.

Schainberg outlined the CVD screening and management strategy in a rheumatology clinic at the University of São Paulo, Brazil, where every patient receives systematic and comprehensive assessments. Additionally, primary care practices in integrated health systems routinely implement measures to improve outcomes. A retrospective study conducted at this clinic evaluated the prevalence of CV events and risk factors among 158 consecutive patients with PsA. CVD was defined as a history of clinically documented coronary artery disease or cerebrovascular ischemic events.[7] A total of 14% of patients with PsA had CVD, with significantly higher rates of hypertension (95% vs 45%) and diabetes (60% vs 19%) among those who had experienced a CV event.[7] This emphasizes the importance of early detection and management of these risk factors in patients with PsA.

Screening includes a thorough medical history, including family and individual history of CVD events, age, and risk factors. The physical examination includes recording BMI, abdominal circumference, blood pressure, heart auscultation, and pulse palpation, and performing routine blood tests to evaluate lipid and glucose levels. CV-specific imaging such as carotid ultrasound and echocardiography is ordered when necessary.

After risk stratification, patients at high risk or previously diagnosed with CVD are referred to a cardiologist for secondary prevention, even if they are asymptomatic, as this can signifi-

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cantly affect their prognosis.[8,9] Treatment depends on the risk factors, starting with lifestyle modifications and medication when appropriate. The clinic's approach follows the following American Heart Association and American College of Cardiology recommendations[8]:

- Lifestyle modifications: diet, exercise, smoking cessation, and fostering social connections
- Medications: statins (based on risk stratification), with additional treatments in specific scenarios (eg, ezetimibe, proprotein convertase substilisin/kexin type 9 [PCSK-9] inhibitors such as evolocumab, small interfering RNA, antiplatelet agents, antiinflammatory therapy including biologics and colchicine)
- Regular follow-up to evaluate treatment adherence, response, and tolerability.

Proper treatment of PsD to control inflammation is expected to reduce CVD risk. The GRAPPA 2021 treatment recommendations for PsA indicate avoiding nonsteroidal antiinflammatory drugs and Janus kinase inhibitors in patients at high risk for CVD.[10] Drugs targeting pathways involved in atherosclerosis (eg, tumor necrosis factor, interleukins) may affect CVD risk beyond inflammation reduction, although this remains less established.[11-14]

Future research should investigate (1) the effect of nonpharmacological interventions on CV comorbidities, (2) metabolic interventions—such as metformin, antihyperlipidemic agents, and glucagon-like peptide 1 agonists—on PsA activity; and (3) different disease-modifying antirheumatic drugs on CVD risk.

Dermatologist's perspective on CV comorbidities in PsO

Rosen highlighted the recognition among dermatologists regarding the prevalence of CV comorbidities in individuals with PsO. Patients with PsO are up to 50% more likely to develop CVD, with increased risk associated with worse skin severity.[15] Various guidelines advocate for an integrated approach to managing these comorbidities, emphasizing the importance of education, screening, and collaboration with primary care physicians, rheumatologists, and cardiologists when necessary.[16-18] Notably, the 2019 Joint American Academy of Dermatology–National Psoriasis Foundation guidelines[18] provide several key recommendations for CVD screening in patients with PsD, including the following:

- Risk assessment: implement routine screening for hypertension, diabetes, and hyperlipidemia for all patients with PsO
- Risk management: ensure that identified risks are managed by primary care physicians, healthcare providers experienced in CVD risk management, or dermatologists.

Although dermatologists recognize the importance of CV assessment in their practice, this awareness has not yet been accompanied by effective measures for assessing and managing these comorbidities in routine dermatology practice.[17] Time constraints during office visits, where dermatological issues are the focus, can make comprehensive evaluation of CVD risk factors challenging.

To explore the practical application of CVD risk screening among dermatologists, an online survey was conducted targeting around 30 community practice dermatologists in Toronto, Canada. The survey, open for 3 weeks, yielded 17 responses; of these, over 70% indicated they routinely inquire about their patients' blood pressure, diabetes status, smoking history, familial heart disease, and dyslipidemia. All respondents reported reviewing their patients' medication lists, which may indicate at least some level of awareness of comorbidities under treatment (Table).

Table. Online survey of dermatologists in private clinics and community practice in Toronto, Ontario[a] (17 total responses).

Question	Yes, %	No, %
Do you ask about blood pressure, diabetes, smoking?	71	29
Do you ask about a history of heart disease?	76	24
Do you ask about dyslipidemia?	71	29
Do you review their list of medications?	100	–

[a] C.F. Rosen, MD, unpublished data, 2024.

Although substantial efforts have been invested in informing dermatologists' CVD awareness through educational activities, literature, and established guidelines, the pressing question remains: how effectively is this acquired knowledge being applied in real-world clinical practice? Further research is needed to clarify the gap between academic guidelines and their implementation in dermatological care.

Conclusions

Early recognition and appropriate management of CVD risk factors in patients with PsD are crucial for reducing the risk of CVD and preventing early morbidity and mortality. A multidisciplinary approach is essential for achieving optimal results.

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COMPETING INTERESTS

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ETHICS AND PATIENT CONSENT

Institutional review board approval and patient consent were not required.

PEER REVIEW

As part of the supplement series GRAPPA 2024, this report was reviewed internally and approved by the Guest Editors for integrity, accuracy, and consistency with scientific and ethical standards.

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