

PSORIASIS AND CARDIOVASCULAR RISK. IS THERE ANY ASSOCIATION?**Mateusz Gabryszewski^{1(A,B,D,E,F)}, Katarzyna Karp^{1(B,C,D,E)}, Piotr Puźniak^{1(B,C,E,F)}, Paulina Karp^{1(A,C,D,E)}**¹Medical University of Lodz, Poland

Authors' contribution

- A. Study design/planning
- B. Data collection/entry
- C. Data analysis/statistics
- D. Data interpretation
- E. Preparation of manuscript
- F. Literature analysis/search
- G. Funds collection

Dear Editor,

We have recently read a very interesting article by Branisteanu et al. [1], describing the association between psoriasis and increased cardiovascular risk (CVR). We believe this article raises an important issue and the dissemination of knowledge about the relationship between these two diseases may promote prevention and earlier diagnosis of cardiovascular diseases (CVD).

Psoriasis is a chronic, papulosquamous skin disorder characterized by chronic inflammation, affecting 3-5% of the general population worldwide [1]. Individuals with psoriasis are at increased risk of hypertension, cardiovascular disease, dyslipidaemia, obesity and diabetes [2]. Research is being conducted to understand the molecular mechanisms between the development of psoriasis and its comorbidities. Recent studies have identified that psoriasis and CVD have various common pathogenic pathways including genetic factors, inflammatory pathways, adipokine secretion, insulin resistance, lipoproteins, angiogenesis and oxidative stress [3]. Reasons for increased CVD risk include both increased systemic inflammation caused by psoriatic lesions, usually covering large areas of the skin and the fact that psoriasis is associated with an increased incidence of modifiable cardiovascular risk factors such as obesity, smoking, hypertension, diabetes mellitus, dyslipidemia, metabolic syndrome and a sedentary lifestyle [3]. The study by Karbach et al. [4] found that psoriatic patients with heart attacks were on average 5 years younger than heart attack patients without psoriasis. Conversely, the study showed lower in-hospital mortality in psoriatic patients with myocardial infarction, probably caused by lower age [4].

The awareness of the links between psoriasis and cardiovascular diseases remains low. Interestingly, a Spanish study assessed the connections between psoriasis and increased CVR and knowledge of screening recommendations in psoriasis patients [3]. This study found that more than 60% of primary care physicians were unaware of psoriasis being associated with CVD [3].

Recent studies have identified that systemic therapy used in the treatment of psoriasis not only reduces inflammation in the skin, which causes the skin lesions

Keywords: systemic inflammation, cardiovascular risk, psoriasis, myocardial infarction, prevention

Tables: 0

Figures: 0

References: 5

Submitted: 2024 May 1

Accepted: 2024 May 7

Published Online: 2024 May 17

Gabryszewski M, Karp K, Puźniak P, Karp P. Psoriasis and cardiovascular risk. Is there any association?. Health Prob Civil. 2025; 19(1): 3-4.
<https://doi.org/10.5114/hpc.2024.139476>

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to disappear, but also has a systemic anti-inflammatory and anti-cytokine effect. The commonly used psoriasis drug methotrexate has been proven to reduce the incidence of cardiovascular disease, myocardial infarction and stroke. This effect is enhanced by the use of acetylsalicylic acid with methotrexate. According to Branisteanu et al. [1], the use of biological therapy also reduces inflammatory activity in psoriasis, prevents the formation and even limits the development of atherosclerotic plaque. Moreover, it reduces the incidence of myocardial infarction, stroke, transient ischemic attack and unstable angina [1].

Since psoriasis is a disease that increases the risk of developing diseases such as hypertension, circulatory system diseases, dyslipidemia, obesity and diabetes, it is necessary not only to treat skin lesions, but also to approach the patient holistically. Psoriatic patients should undergo regular screening for comorbidities in order to detect and treat them as quickly as possible. It is crucial to educate patients about a healthy lifestyle and promote the Mediterranean diet, non-smoking, healthy sleeping habits, weight control and regular physical activity [5].

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