

## RISK FACTORS

## Severe psoriasis linked with increased cardiovascular mortality

At least 2–4% of the adult population have psoriasis, a T-helper (T<sub>H</sub>)<sub>1/17</sub>-mediated inflammatory disease of the skin and joints. Factors secreted from these T<sub>H</sub> cells are also involved in the pathogenesis of various cardiovascular conditions. Indeed, epidemiological studies have shown an independent association between psoriasis and atherosclerosis, coronary artery disease, myocardial infarction, stroke, endothelial dysfunction, and diabetes. A cohort study by Nehal Mehta and colleagues has now demonstrated that patients with severe psoriasis are at increased risk of death from cardiovascular disease.

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The study investigators used a database of medical records of patients in the UK (the General Practice Research Database) to identify 3,603 patients with severe psoriasis and 14,330 matched control patients who had no history of psoriasis marked on their records. After adjusting for traditional cardiovascular risk factors—age, sex, smoking status, diabetes, hyperlipidemia, and hypertension—the investigators found that risk of cardiovascular mortality

was increased by 57% in patients with severe psoriasis. Notably, the increased risk associated with severe psoriasis was greater than that associated with other more-traditional cardiovascular risk factors, such as hypertension and current or former smoking. In addition, the relative risk of cardiovascular mortality was greatest in the younger patients with severe psoriasis included in the study; in 40-year-old patients with severe psoriasis, the adjusted relative risk of death resulting from cardiovascular disease was 2.69 (95% CI 1.45–4.99), compared with 1.92 (95% CI 1.41–2.62) in 60-year-old patients.

More studies are needed to determine the mechanism of the association between psoriasis and cardiovascular risk. However, Dr Joel Gelfand, study investigator and Assistant Professor of Dermatology at the University of Pennsylvania, PA, USA believes that “based on current data, patients with psoriasis ... should be encouraged to be screened for cardiovascular risk factors and have modifiable risk factors treated appropriately.” Dr Nehal Mehta, from the Division of Cardiovascular Medicine at the University of Pennsylvania School of Medicine, goes on to state that “given the accumulating evidence of increased cardiovascular risk in [patients with] psoriasis, it is critically important [for clinicians] to determine how best to incorporate psoriasis into current treatment algorithms for prevention of cardiovascular disease.”



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The study investigators are now conducting a prospective, population-based study of 5,000 patients with psoriasis to determine how the severity of this disease impacts on cardiovascular risk and the control of cardiovascular risk factors. They are also trying to determine the impact of cardiovascular risk attributable to severe psoriasis on 10-year cardiovascular risk assessment. Gelfand concludes that “ultimately, observational studies and clinical trials will be required to determine if controlling psoriasis will lead to a lower risk of serious cardiovascular outcomes.”

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