

## The Psoriasis Plot Thickens

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Over the last several years dermatologists have become increasingly aware of a growing body of data suggesting that psoriasis is associated with systemic comorbidities including metabolic syndrome and increased risk for cardiovascular disease. Metabolic syndrome generally is defined by the presence of or treatment of at least 3 of the following 5 criteria: hypertension, insulin resistance, decreased high-density lipoprotein, hypertriglyceridemia, and central obesity. We have witnessed a transformation in the way we approach psoriasis. In the past, psoriasis was mainly viewed as a cutaneous concern; however, it is now viewed and treated as a systemic inflammatory condition, which deserves a multidisciplinary approach.

Given these systemic comorbidities, it follows that additional associations with psoriasis may exist. Wu et al<sup>1</sup> examined the association between psoriasis and 21 common autoimmune diseases that were specified a priori. A retrospective cohort study was performed among individuals who were members of Kaiser Permanente in Southern California from 2004 to 2011. A total of 25,341 patients with 2 or more diagnosis codes for any variant of psoriatic disease were evaluated in addition to 126,705 matched control patients to determine its relationship with autoimmune diseases. The authors reported that psoriasis patients were more likely to have at least 1 other autoimmune disease (odds ratio (OR), 1.6; 95% confidence interval [CI], 1.5-1.7) and to have at least 2 other autoimmune diseases (OR, 1.9; 95% CI, 1.6-2.4). Of the 17 conditions evaluated, associations were found to be statistically significant with 14 conditions, and the strongest association was with rheumatoid arthritis (OR, 3.6; 95% CI, 3.4-3.9). Other major associations included systemic lupus erythematosus, Sjögren syndrome, systemic sclerosis, celiac disease, giant cell arteritis, and hemolytic anemia. Patients with psoriasis were 2 times more likely to develop alopecia areata, celiac disease, and

systemic sclerosis. The authors concluded that evaluation for autoimmune diseases in psoriasis patients may be warranted as part of their medical care.<sup>1</sup>

Because metabolic syndrome and insulin resistance are associated with psoriasis, an association of type 2 diabetes mellitus (DM) would not be surprising. Azfar et al<sup>2</sup> conducted a large, population-based, cohort study to determine the risk for incident type 2 DM in patients with psoriasis of varying severities. They also examined if patients with DM and psoriasis were more likely to receive prescription DM therapy compared to patients with DM but not psoriasis. The authors theorized that individuals with psoriasis, especially severe cases, are at an increased risk for the development of type 2 DM, and patients with DM and psoriasis demonstrate greater use for systemic DM medications. The study population included 108,132 patients with psoriasis and 430,716 matched patients without psoriasis. In the overall, mild, and severe psoriasis groups, the fully adjusted hazard ratios (CIs) for incident DM were 1.14 (1.10-1.18), 1.11 (1.07-1.15), and 1.46 (1.30-1.65), respectively. Among patients with incident DM and severe psoriasis, the adjusted risk (CI) for receiving systemic DM therapy was 1.55 (1.15-2.10). These results suggested that psoriasis is an independent risk factor for the development of type 2 DM. Notably, this relationship is dose dependent, with severe psoriasis conferring a higher risk than mild psoriasis.<sup>2</sup>

The findings of these recently published studies are not unexpected. This information continues to build a picture of psoriasis as a disease that requires a comprehensive approach. We must continue to educate and encourage our patients to pursue healthy lifestyles and receive appropriate medical evaluation.

### REFERENCES

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