

## Higher levels of obesity-related hormone found in patients with psoriasis

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Patients with the skin disease psoriasis appear more likely to have higher levels of leptin (a hormone produced by fat cells that may contribute to obesity and other metabolic abnormalities) than persons without psoriasis, according to a report in the December issue of *Archives of Dermatology*.

Psoriasis is an autoimmune disease that results in a red, scaly rash. "Associations among psoriasis, obesity, hypertension, cardiovascular diseases, diabetes mellitus and metabolic syndrome have been reported," the authors write as background information in the article. "Although the underlying mechanisms may be complex, the 'obesity of psoriasis' is thought to be a key link to cardiovascular diseases, including diabetes mellitus, stroke, heart disease, hypertension and myocardial infarction [heart attack]."

Yi-Ju Chen, M.D., of the Taichung Veterans General Hospital and National Chung Hsing University, Taiwan, and colleagues studied 77 patients with psoriasis and 81 individuals who were the same age and sex but did not have psoriasis. In 2006 and 2007, the researchers collected clinical characteristics of the participants, including age, sex, height, weight, any other diseases they had and the severity of their psoriasis. Blood samples were analyzed for levels of leptin, a hormone that helps control food intake, body weight and fat stores and also is related to immune and inflammatory processes.

Individuals with psoriasis were more likely than controls to be obese and

to have hypertension (high blood pressure) and elevated blood glucose levels or diabetes. High blood levels of leptin were found more often in females, the obese and those with high blood pressure, metabolic syndrome (a grouping of cardiovascular risk factors that includes hypertension and high cholesterol) or psoriasis.

"After adjustment for sex, body mass index and conventional cardiovascular risk factors (including hypertension and metabolic syndrome), psoriasis was independently associated in our study with hyperleptinemia [high leptin levels]," the authors write. "In addition, hyperleptinemia in psoriasis is associated with higher risk of developing metabolic syndrome. This novel finding links the chronic inflammation status of psoriasis with metabolic disturbances."

The high circulating leptin levels in individuals with psoriasis may derive not only from fat tissue but also from inflammation, they continue. "Body weight loss has been reported to significantly decrease leptin levels and improve insulin sensitivity and may reduce the likelihood of developing metabolic syndrome and adverse cardiovascular diseases," the authors conclude. "Body weight loss could potentially become part of the general treatment of psoriasis, especially in patients with obesity."

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