Treating psoriasis to prevent heart attacks and strokes

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A clinical study co-led by the Montreal Heart Institute and Innovaderm Research Inc., which was presented today at the annual meeting of the American Academy of Dermatology, shows that a new treatment for psoriasis could be associated with a significant decrease in vascular inflammation, a major risk factor of cardiovascular disease.

Psoriasis is a chronic inflammatory disease of the skin and joints that affects up to 3% of the population. This disease is associated with a greater risk of heart attack (infarction) and stroke. The goal of this clinical study was to show that a treatment to reduce skin inflammation in psoriasis patients could be associated with a decrease in vascular inflammation.

The study had positive results, as vascular inflammation decreased significantly in patients suffering from psoriasis who were treated with adalimumab, a biological anti-inflammatory compound. The study also showed a 51% decrease in C-reactive protein among patients treated with adalimumab compared to a 2% decrease among patients in the control group. These results are significant, as a high level of C-reactive protein is known to be associated with an increased risk of heart attack and stroke. In relation to the treatment of psoriasis, 70% of patients who received the compound presented with a major decrease in skin lesion severity, compared to 20% of patients in the control group.

According to Dr. Robert Bissonnette, President and Founder of Innovaderm Research Inc. and co-principal author of the study, who will
present the findings at the annual meeting of the American Academy of Dermatology, "This study is a great example of the high-level research being conducted in Montréal. "He added that this clinical research study suggests that it is possible to assess the impact of psoriasis treatments on the heart without having to resort to long-term studies that require thousands of patients and have higher costs.

"These findings are extremely encouraging for people suffering from psoriasis, as they face a greater risk of cardiovascular disease," explained Dr. Jean-Claude Tardif, Director of the Research Centre of the Montreal Heart Institute and co-principal author of the study. He also emphasized the importance of regular medical follow-up for people with psoriasis to prevent cardiovascular events and establish an optimum therapeutic approach.

**Imaging as a vascular inflammation measurement tool**

Between May 2009 and June 2011, 30 patients suffering from moderate to severe psoriasis and with a history of coronary artery disease or multiple associated risk factors were followed for four months as part of a randomized clinical study. The patients were divided into two groups: the first group was treated with sub-cutaneous injections of adalimumab while the second group received no treatment or a routine treatment (i.e., topical formulation, phototherapy). Each patient's level of vascular inflammation was measured at the start and end of the study with positron emission tomography (PET), a type of medical imaging, to scan the carotid arteries and the ascending aorta.

Provided by Montreal Heart Institute