

Evaluation of Leptin with Atherosclerosis in Rheumatoid Arthritis

To the Editor:

We have read with great interest the letter by Dessein, et al, "Effect of traditional cardiovascular risk factors on the independent relationship of leptin with atherosclerosis in rheumatoid arthritis."¹ They reported that they found an effect of leptin on carotid artery plaque that is dependent on the number of major conventional risk factors. However, we think there are some points that should be mentioned as contributory factors.

Leptin is an adipokine that regulates appetite and energy expenditure, as the authors stated. Previous studies suggested that several diseases such as major depression, chronic liver diseases, and several inflammatory diseases such as systemic lupus erythematosus, psoriasis, multiple sclerosis, and *Helicobacter pylori* infection could affect serum leptin levels^{2,3}. The authors listed diabetes, hypertension, dyslipidemia, and smoking as major risk factors, which are also known as factors affecting serum leptin levels, but the diseases we mentioned have to be denoted to obtain a strong study group.

It was shown that some types of glucocorticoids, antihypertensive drugs, antipsychotics, and lipid-lowering, hormonal, insulin-sensitizing and antidepressant medications had an effect on serum leptin levels^{4,5}. In addition to these medications, dietary food supplements such as vitamin A, vitamin D, vitamin E, zinc, linoleic acid, and omega-3 fatty acid could affect plasma leptin levels⁶. In this respect, the authors should define whether the participants use these kinds of drugs and dietary supplements.

Addressing these concerns will certainly provide a clearer picture when interpreting leptin levels among participants.

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REFERENCES

1. Dessein PH, Tsang L, Woodiwiss AJ, Solomon A. Effect of traditional cardiovascular risk factors on the independent relationship of leptin with atherosclerosis in rheumatoid arthritis. *J Rheumatol* 2014;41:2087-9.
2. Fantuzzi G, Faggioni R. Leptin in the regulation of immunity, inflammation, and hematopoiesis. *J Leukoc Biol* 2000;68:437-46.
3. Park HK, Ahima RS. Physiology of leptin: energy homeostasis, neuroendocrine function and metabolism. *Metabolism* 2015; 64:24-34.
4. Atmaca M, Kuloglu M, Tezcan E, Ustundag B, Semercioz A. Serum leptin levels in patients with premature ejaculation before and after citalopram treatment. *BJU Int* 2003;91:252-4.
5. Kraus T, Haack M, Schulz A, Hinze-Selch D, Kuhn M, Uhr M, et al. Body weight and leptin plasma levels during treatment with antipsychotic drugs. *Am J Psychiatry* 1999;156:312-4.
6. Xiong RB, Li Q, Wan WR, Guo JQ, Luo BD, Gan L. Effects and mechanisms of vitamin A and vitamin E on the levels of serum leptin and other related cytokines in rats with rheumatoid arthritis. *Exp Ther Med* 2014;8:499-504.

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