

Serum Prolactin and Cardiac Remodeling in Subjects with Prediabetes

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Prolactin is an anterior pituitary hormone, and its most well-known physiological role is to control initiation and maintenance of lactation [1]. Recently, its other broad physiological functions including metabolism were suggested, as the expression of prolactin receptor was found in various organs such as endometrium, prostate, pancreatic islets, and adipose tissue [2,3]. Previous studies showed that prolactin has effects on obesity, insulin resistance, and the growth of pancreatic β -cells, which may mediate diabetes [1,4,5]. Several studies suggested an inverse association between serum prolactin levels and metabolic parameters such as cardiovascular events, cardiac remodeling, diabetes, metabolic syndrome, and adverse lipid profiles [6-8]. Furthermore, studies on serum prolactin levels within the physiological range revealed conflicting results.

This article entitled “Impact of gender on the association between low serum prolactin and left ventricular mass in subjects with prediabetes,” along with that published by El-Eshrawy et al. [9], evaluated the association between serum prolactin level and cardiac remodeling in patients with prediabetes according to gender. It is helpful that the association between serum prolactin levels and other parameters were evaluated separately for each gender, as serum prolactin levels can be regulated differently between genders. Estrogen is believed to play a central role in the control of prolactin release. In this study, physiologically low serum prolactin was an independent predictor of increased left ventricular mass and left ventricular hypertrophy in adult men, but not in women. Determining the exact biologic mechanism underlying these differences was not possible

because it was a cross sectional study. However, this approach is quite valuable in establishing a potential gender-specific diagnostic biomarker for cardiac remodeling in patients with prediabetes. The authors have clearly shown their results in this manuscript.


In my opinion, it would have added more value to their findings if they measured and adjusted for the effect of sex hormones and sex hormone-binding globulins as a potential confounding factors, which would have demonstrated the results more clearly.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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