

Characteristic Features of Metabolic Syndrome in Obese Japanese Students

Takashi ASANO^{1,2)*}, Ryoko YOSHIDA²⁾, Hideaki OGATA²⁾,
Kazuhiko KOKAWA²⁾, Yuhko AKEHI³⁾, Keizo ANZAI²⁾,
Junko ONO³⁾, Kazuo TAMURA²⁾ and Masahiro KIKUCHI¹⁾

¹⁾ *Medical Health Center, Fukuoka University, 19-1, Nanakuma-8, Johnan-ku, Fukuoka 814-0180, Japan*

²⁾ *Department of Internal Medicine (Diabetes Unit)*

³⁾ *Clinical Pathology, Fukuoka University Hospital, Fukuoka Japan*

Abstract : To study how central obesity affects glucose tolerance, the waist circumference was measured in 45 of the subjects, including 1 with type 2 diabetes and 6 with IGT or IFG (combined prevalence of glucose intolerance, 15.6%). The waist circumference was excessive in 80% of the male subjects and in 20% of the female subjects. Of the 27 centrally obese subjects, 16 had cardiovascular risk factors (dyslipidemia, high blood pressure, and/or glucose intolerance); 7 had two or more, and thus were considered to have metabolic syndrome (15.6% of 45). In the centrally obese subjects, insulin sensitivity was significantly reduced, while impaired glucose tolerance was only seen in the centrally obese subjects. In central obesity, insulin resistance thus may be the initial step toward β -cell dysfunction and hyperglycemia. Obese young adults with central obesity need an early initiation of ongoing monitoring to detect type 2 diabetes and cardiovascular risk factor.

Key words : Central obesity, Glucose intolerance, Disposition index, Metabolic syndrome, Young adults