Bariatric surgery improves arterial stiffness of the patient with metabolic syndrome

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Obesity is an independent predictor of cardiovascular risk. Increased arterial stiffness, as reflected by an increased pulse wave velocity (PWV), is significantly and independently associated with higher risk for cardiovascular morbidity and mortality. According to recent reports, individuals with obesity are likely to have an increase in aortic stiffness, independent of blood pressure (BP) level, ethnicity, and age. A 60-year-old Japanese woman with obesity (BMI 45.5) and metabolic syndrome was referred to us. Her diabetic status is under control after bariatric surgery. The PWV decreased significantly after treatment (1528 vs 1211cm/sec) with reduction of visceral fat (100 vs 52 cm^2). The bariatric surgery could improve arterial wall stiffness in patients with metabolic syndrome. The pathophysiologic mechanisms that link abdominal adiposity to arterial stiffening are should be investigated.