

Obesity and cardiovascular disease- Focus on inflammation

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Abstract

Obesity is emerging as one of the most critical health care problems in the US and worldwide as $\geq 65\%$ of the US population is currently overweight or obese. Obesity is closely linked to the development of type 2 diabetes and cardiovascular disease that are important causes of morbidity and mortality associated with excess weight. Recently published work from our laboratory demonstrated that adipose tissue inflammation represents a key pathological process linked to metabolic stress and vascular endothelial dysfunction in obese subjects. Triggers of inflammation in fat are unknown but highly clinically relevant as individuals with reduced inflammation exhibit a much more favorable risk factor profile despite their severe obesity, supporting the growing notion that both quality and quantity of fat play a significant role in shaping cardiovascular phenotypes in human obesity. Our data also suggest that visceral fat is associated with a greater burden of cytokine production and we will present data to show direct human evidence that the visceral adipose microenvironment is more “toxic” to blood vessels, providing a potential mechanism linking visceral adiposity to cardiometabolic risk.

Biography

Noyan Gokce is Associate Professor of Medicine, Director of Echocardiography at Boston University Medical Center. He received his MD degree from Tufts University School of Medicine, Boston in 1992, completed residency training at Beth Israel Hospital, Boston in 1995, followed by Cardiovascular Fellowship at Boston Medical Center, Boston where he has served as attending cardiologist since 1998. Dr. Gokce is the recipient of NIH R01 grant awards studying cardiovascular effects of obesity. He has published > 60 papers in peer reviewed journals and is currently an editorial board member for the journal *Circulation: Cardiovascular Imaging*.