

Vulnerable plaque detection: The role of 18-fluorine fluorodeoxyglucose in identifying high risk patients

Abstract

Positron emission tomography computed tomography (PET-CT) is a combined functional and structural multi modality imaging tool that can be utilized to detect vulnerable and atherosclerotic plaques. In this study we observe the prevalence of active and calcified plaques in selected arteries during whole-body 18F-FDG PET-CT and correlate the findings with risk factors in developing coronary artery disease. There was a significant relationship between patients with high body mass index and vulnerable plaques. We concluded that 18F-FDG PET-CT can be utilized in detecting focal high FDG uptake within vascular plaque in early recognition of high risk patients having vascular accidents.

Keyword: Atherosclerosis; Plaque; Computed tomography; Positron emission tomography; Fluorodeoxyglucose; Multimodality