Delayed enhancement of myocardial FDG uptake on glucose loading FDG-PET in NIDDM patient

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We report a case of delayed enhancement of myocardial FDG uptake in NIDDM patient after oral glucose loading. A 65-year-old man who had a past history of NIDDM received FDG-PET examination during fasting and glucose loading. In neither condition, was an accumulation of FDG in the myocardium, and myocardial blood flow was normal. An oral glucose tolerance test (OGTT) was performed to find the best time for FDG injection and 3 hours after loading, the serum insulin concentration was increased significantly. When the interval between glucose loading and the injection of FDG was set at 3 hours, enhancement of myocardial FDG uptake was demonstrated. To know the best time for the FDG injection in advance is thought to be important in obtaining better image quality and interpreting the myocardial viability when FDG-PET examination during glucose loading is performed in NIDDM patients.

Key words: FDG-PET, NIDDM, glucose transporter