**Abstract**

**Aim**

Purpose of our study is to assess the effectiveness of 64-slice cardiac computed tomography (CT) angiography, in detecting stenosis or occlusion of coronary bypass grafts in our patient population.

**Material and methods**

33 patients who have coronary bypass grafts and have applied to our radiology department for CT coronary an-giography investigation between December 2008 and March 2010 were included in our study. All patients had cardiac CT investigation. 18 patients had both catheter coronary angiography (CCA) and cardiac CT. Cardiac CT angiography reports and images, CCA investigations, clinical follow-up and other results of the patients were evaluated retrospectively.

**Results**

94 grafts of 33 patients were included in our study. There were 32 left internal mammary arteries (LIMA), 1 radial artery, and 61 saphenous vein grafts. There were 50 grafts of 18 patients who also underwent CCA. 2 of these 50 grafts were not included in statistical analysis, because they could not been visualized in CCA due to lack of the catheterization. Totally, 48 grafts were included in statistical analysis. In comparison with CCA, the sensitivity of cardiac CT angiography in the detection of 50% or higher bypass graft stenosis or occlusion was 95.4%; specificity, 92.3%; accuracy, 93.7%; positive predictive value, 91.3%, and negative predictive value, 96%.

**Conclusion**

64 slice cardiac CT investigation is a non-invasive imaging technique with high negative predictive value for evalu-ation of coronary bypass grafts.

**Key words**

Coronary artery bypass, coronary angiography, multidetector computed tomography, coronary disease, imaging.