Objectives  To explore clinical diagnostic value of 128-slice spiral CT coronary angiography (128-SCTCA) in the patients with coronary heart disease, and check the population adapt to 128-SCTCA.

Methods  A retrospective analysis of 198 cases received 128-SCTCA, suspected coronary angiography (CAG) to check the patient’s clinical data in the 4 weeks. Duke model in accordance with coronary heart disease concept will be checked into coronary heart disease (n=48 cases) of low-risk, medium risk (n=64 cases) and high-risk (n=86) three group, as ‘standard’ analysis to CAG 128-SCTCA the accuracy of the diagnosis of coronary heart disease and coronary artery calcification in different parts of vascular segments and other factors on the diagnostic accuracy.

Results  Duke model of coronary artery disease probability low risk group, medium risk group, high-risk group, their coronary artery disease detection rates were 45.4%, 73.6%, 84.2%; 128-SCTCA in diagnosis of coronary heart disease risk group the sensitivity and positive The predictive value was significantly lower than the risk group and high-risk group. Right coronary artery Agatston calcium score >400 grouping, 128-SCTCA diagnostic sensitivity of coronary heart disease (95.6%) was significantly higher than 0–100
grouping and 101 to 400 group (76.3% was 78.7%, p<0.05). 128-SCTCA diagnosis of distal white tube lesion sensitivity, positive predictive value were lower than those near the middle of the white tube (p<0.05).

**Conclusions** 128-SCTCA in Intermediate risk group of DWKE model with coronary heart disease, its diagnostic accuracy was affected by coronary artery calcification, lesion and lumen diameter.