

Cardiac MDCT Techniques: From Basic To Cutting-Edge

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Multidetector computed tomography (MDCT) is widely used for cardiac imaging in the clinical setting. Despite promising results, Current MDCT has still limitations for cardiac applications in terms of artifacts related with temporal or spatial resolution, radiation dose, and the use of contrast media. Recent advent of cardiac MDCT provides important advantages that can potentially improve the status of these limitations and expand the utility of cardiac MDCT imaging beyond coronary imaging such as viability as well as functional imaging such as perfusion imaging or FFR. Additionally, multi-energy acquisitions offer interesting possibilities of tissue characterization or plaque characterization. In this lecture, I will discuss the current status of cardiac MDCT scanners and their advantages for clinical imaging. I will also discuss emerging complementary non-coronary applications that have been enabled by cutting-edge MDCT technology.