

Heart, aorta, peripheral and supra aortic trunks imaging realized by MSCT 64. Our experience

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SUMMARY

A new generation of Multislice Computed Tomography (MSCT 64) was introduced by Siemens in Italy in the end of 2004. It acquires 64 slices per rotation and provides significantly improved image quality with drastically reduced scan times. This technique allows newer applications, particularly in vascular, cardiac, and colonic imaging. We investigated the accuracy of MSCT 64 in 120 patients for the detection of high-grade coronary-artery stenoses and occlusions. A detailed description of the most intriguing images (big vessels of mediastinum, supra aortic trunks, collateral circulation in an aortic pathology, aortic fissuration) is reported.

MSCT 64 (multislice CT 64) represents an undisputed technological evolution of the imaging in the living being. Contrary to conventional coronary angiography (CCA), it enables to carry out noninvasive angiography in various settings, providing potential diagnostic and prognostic applications.

INTRODUCTION

Today, for the study of big and medium arterial vessels, heart coronaries and cerebral arteries, besides of the use of invasive methods like angiography, that include the aorthography and coronography, a non invasive diagnostic method is used. It is the multislice computed tomography (MSCT), which, thanks to the last generation of CT scanner, acquires 64 slices per rotation.

At the end of 2004 Foundation and Clinical Centre "G.B. Morgagni" in Catania installed the MSCT 64, developed by Siemens, before others.

The computed tomography, CT, was invented in 1972 by British engineer Hounsfield (1973) and by South Africa born physicist Cormack (1973), who worked