

Fremanezumab cuts headache days in chronic migraine



Pulse of diabetes
education continues
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Coronary artery computed tomography angiogram is currently used to assess coronary artery disease. Multifunction cardiogram is a new diagnostic tool in cardiac care to detect microvascular and cellular function of the heart muscles.

CTA and MCG in the diagnosis of patients with suspected coronary artery disease – differences in findings and diagnosis

To illustrate the advantage of multifunction cardiogram (MCG) over computed tomography angiography (CTA), let's look at a study to investigate the clinical applications of CT angiography and MCG in patients with suspected coronary artery disease and identify factors that affect CT and MCG findings. CT angiogram is commonly known but MCG is still new.

The methods applied to this study were to evaluate and compare the diagnostic accuracy of CT angiography versus MCG for detecting and assessing coronary artery disease. Both the CT angiography and MCG tests were done on the same patient on the same day, in the same hospital.

The result of the CTA revealed large epicardial coronary arteries. MCG detected the microscopic cellular function and microvascular dysfunction. The former test showed an anatomical blockage of 80 percent at the right coronary artery (RCA). The latter reported the function of the heart muscles as good (Zero score), pathological conditions and physiological conditions were normal. When, the CTA scan picture is scrutinized carefully, the artery distal to the block is full of blood, the same size if not bigger than the artery proximal to the block. Where does this blood come from? The blood is from the collateral arteries, it shows that there is adequate blood supply and hence there is no infarct in that area.

In conclusion, the heart of the patient is not damaged even though there

is 80 percent blockage and there is no ischaemic burden. There is no urgency to carry out a surgery. If coronary artery narrows gradually over many years, the collateral coronary arteries slowly develop to compensate and become adequate enough to supply the blocked area of the heart muscle.

What is MCG?

MCG is a web-based technology indicated for use by physicians as an aid to making timely diagnosis of coronary artery disease. The technology uses field data collected from a portable electronic device known as the MCG client, which then transfer the information through the internet to a central data centre for processing. Once processed, which is usually within 10 minutes, the system generates a mathematical model for the detection of all stages of chronic or acute, local or global myocardia due to underlying coronary artery disease.

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