

New Scan Identifies Heart Attack Risk



Early testing suggests that a novel heart scanning method can identify those who may be at an increased risk of suffering from heart attack.

The test is able to recognize hazardous plaques within the heart-nourishing arteries. A fatty plaque rupture can lead to a blood clot, which in turn blocks the flow of blood in a person's body, and according to the scientists at the University of Edinburgh, finding an effective heart attack prediction tool would make an enormous difference to patients everywhere. Experts agreed this was indeed an exciting start, as with over 100,000 of UK residents suffering a heart attack each year artery disease is the leading cause of death globally.

Utilising a technology already employed to detect tumours in cancer patients, researchers were able to obtain a detailed picture of the heart with clearly highlighted danger zones. They combined a radioactive tracer, able to seek out active and dangerous plaques, with high resolution images of the heart and blood vessels.

According to a study published in the Lancet medical journal the initial tests of the technique for heart danger spots were conducted on 40 patients who had recently had a heart attack. The scan successfully highlighted the heart attack causing plaque in 37 of the patients.

Whether detecting dangerous plaques before, rather than after, a heart attack has the potential to save lives requires further testing, though it is the first time a scan has been able to identify danger zones.

Cardiologist Dr Marc Dweck suspects not all plaques detected will actually lead to a heart attack, however the method could be useful for identifying high risk patients in need of aggressive therapy such as statin or aspirin drugs, a radical change in lifestyle, or even the insertion of an artery-opening stent.

In order to investigate whether the scan is able to save lives researchers will look at high risk patients, including those about to have surgery, and according to Dr Dweck, if they prove successful it would make a "massive difference" since the first time people know about heart disease is when they have a heart attack. He hopes that treatment and stabilisation of the plaques will lead to the prevention of heart attacks.

The medical director of the British Heart Foundation, Prof Peter Weissberg, confirms that conventional heart tests cannot identify the dangerous fatty plaques likely at fault, and goes to say this research indeed suggests PET-CT scanning may provide an answer towards successfully identifying patients at risk of a heart attack. The next step lies in the confirmation of these findings in order to understand how to optimise the use of these new tests in the clinic, Prof Weissberg concludes.

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