Delayed stenting can help some heart attack patients

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(Medical Xpress)—Delaying putting a stent in patients who have suffered a 'high risk' heart attack could aid their recovery, new research has shown.

The usual procedure in patients who have suffered a ST segment elevation myocardial infarction (STEMI) – the most serious type of heart attack – and who are at risk of 'no reflow' is to immediately insert a stent to reopen the blocked artery.

However, a study by Professor Colin Berry and colleagues at the University of Glasgow and the Golden Jubilee National Hospital, presented to the American College of Cardiology (ACC) conference on Friday 9 March, found deferring stenting in such cases was beneficial.

A STEMI heart attack occurs when the coronary artery is totally blocked resulting in prolonged interruption to the blood supply if not treated promptly.

'No-reflow' is a phenomenon where, although blood flow through the blocked artery is restored, blood still cannot return to the oxygen-starved area of the heart. This is because the tiny vessels within the damaged muscle do not allow blood to flow. About 40 per cent of people who have had a STEMI heart attack are at risk of 'no reflow'.

The study, funded by the British Heart Foundation (BHF) and the Chief Scientist Office of NHS Scotland, involved 101 patients who had

suffered a STEMI heart attack and were at high risk of 'no reflow'.

In one group of patients the researchers inserted a stent straight away, and in the other stenting was delayed by up to 16 hours. This trial suggests that waiting for a period of time before putting in a stent in high-risk patients who have had a STEMI reduces the likelihood of 'no-reflow' and may improve clinical outcome.

Prof Berry, of the Institute of Cardiovascular and Medical Sciences and Honorary Consultant Cardiologist at the Golden Jubilee National Hospital, said: "We are really excited about the potential clinical impact of our trial results. Our evidence suggests that no-reflow and thrombotic events were reduced with deferred stenting.

"Deferred stenting means there is a period of time where a healing process of sorts can take place. Because a stent is placed around an area where there has been a clot, if it is placed immediately some clot material can be dislodged which then cause a blockage in small blood vessels. When the stent placement is deferred, it is placed in better circumstances.

"The safety and cost-effectiveness of deferred stenting in selected patients merits further assessment in a multicentre trial."

Professor Jeremy Pearson, Associate Medical Director at the BHF, said: "This is an interesting result suggesting that the outcome may be better for one group of patients who have had a major heart attack caused by a fully blocked artery if stenting is delayed. However, bigger trials with a lengthier follow-up of patients would be needed before there's a change in clinical practice."

More information: "A Randomised Controlled Trial of Deferred Stenting versus Immediate Stenting to Prevent No-Reflow in Acute ST-

elevation Myocardial Infarction" by Berry et al. Abstract presented at ACC on Saturday 9th March 2013.

Provided by University of Glasgow