

Heart attack and inflammatory atherosclerosis: media backgrounder

Quick facts

- About 40% of heart attack survivors experience inflammatory atherosclerosis¹.
- They remain at high risk of secondary cardiovascular (CV) events, such as another heart attack or stroke.
- 25% experience another event within five years².

What is a heart attack?

- Heart attack, also known as myocardial infarction (MI), occurs when a blood clot stops blood flow and oxygen supply to a part of the heart, causing damage to the heart muscle³.
- Despite standard treatment, people with a prior heart attack live with a higher ongoing risk of having another event or dying².
- Heart attack occurs in about 580,000 people every year in EU5 and 750,000 people in the United States alone^{4,5}.

What is inflammatory atherosclerosis?

- Atherosclerosis is the buildup of fats, cholesterol and other substances in and on the artery walls that can restrict blood flow.
- The inflammatory component of atherosclerosis is driven by inflammatory cells in the artery wall that accumulate because of fat buildup⁶.
- It has been shown that in about **four in 10 people** who have had a heart attack, the risk of having another heart attack or stroke is directly related to increased inflammation of the blood vessels, known as **inflammatory atherosclerosis**¹.
- There are currently no approved therapies that selectively target the inflammatory component of atherosclerosis, and 25% of people will experience another CV event within five years².

Secondary events in people with inflammatory atherosclerosis are associated with increased morbidity, mortality and reduced quality of life and currently represent a major economic burden on patients and healthcare systems around the world.

How is inflammatory atherosclerosis identified?

Measuring the level of **C-reactive protein (CRP)** in the blood helps to identify inflammatory atherosclerosis. The level of CRP is measured using a high sensitivity CRP test (hsCRP). hsCRP is a well-established clinical indicator of elevated CV inflammation in the body, and its presence indicates an increased risk of secondary events following a heart attack. hsCRP assays are precise, inexpensive, and readily available.

References

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3. NHS Choices. Heart attack. Available at: <http://www.nhs.uk/conditions/Heart-attack/Pages/Introduction.aspx>. Last accessed June 2017.
4. EU5 MI trend. Based on Eurostat discharge data. Novartis data on file.
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