CRP apheresis in acute anterior myocardial infarction[1]

EXTRACT

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[1] Translation of the executive summary of the assessment of potential E22-11 *CRP-Apherese bei akutem Herzvorderwandinfarkt* (Version 1.0; Status: 7 February 2023). Please note: This translation is provided as a service by IQWiG to English-language readers. However, solely the German original text is absolutely authoritative and legally binding.

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Executive summary

The Federal Joint Committee (G-BA) commissioned the Institute for Quality and Efficiency in Health Care (IQWiG) to assess the potential of C-reactive protein (CRP) apheresis in acute anterior wall myocardial infarction in accordance with §137e of the Social Code Book (SGB) V – Statutory Health Insurance. The application was submitted to IQWiG on 20 December 2022.

According to the applicant, CRP apheresis serves to reduce the level of CRP in blood plasma after successful primary percutaneous coronary intervention (PCI) in acute anterior wall infarction. This is intended to limit tissue damage and infarct scarring and, in the long term, result in reduced cardiovascular and overall mortality, heart failure-related hospitalizations, unplanned emergency admissions, and improved quality of life.

One non-randomized comparative study (CAMI-1, evidence level IIb), 1 case series (evidence level IV), 3 case reports (evidence level V) as well as the clinical evaluation report and post-market clinical follow-up (PMCF) report were available for assessment.

The assessment of CRP apheresis was based in particular on results from the CAMI-1 study on major adverse cardiac events (MACE) as well as on left ventricular ejection fraction (LVEF) and infarct size, which can be accepted as established and plausible surrogates for cardiac morbidity and mortality. For patients with systemically elevated CRP levels, the results for the two surrogate endpoints suggest that the use of CRP apheresis in addition to standard treatment may be associated with lower cardiac mortality and morbidity. According to the documents submitted, the adverse events associated with the method were mild to moderate. The results from the other documents submitted do not contradict the results of the CAMI-1 study.

Based on the application documents submitted for CRP apheresis in patients with acute anterior wall myocardial infarction and systemically elevated CRP levels, it can therefore be inferred that there is potential for a necessary treatment alternative, based in particular on the available findings on the surrogate endpoints of infarct size and LVEF.

A large randomized controlled trial would be necessary to demonstrate the benefit of CRP apheresis after successful standard treatment for acute anterior wall infarction compared to standard treatment alone.

The full report (German version) is published under
https://www.iqwig.de/projekte/e22-11.html