Oxygen supplementation in acute myocardial infarction

dr H.J.E.M. Janssens

Supplying $O_2$ might seem an obvious treatment for acute conditions in which $O_2$ is of pathophysiological importance, like actual or impending myocardial infarction.

$O_2$ was officially authorised as a medicine in 2006, without making it clear on what research evidence this was based.

Studies of $O_2$ supplementation in acute situations have been scarce and have often found little or no clinical efficacy, whereas there was evidence of possible counterproductive or harmful effects.

The authors of a 2016 Cochrane review found no evidence for the efficacy of the routine use of $O_2$ for patients with acute myocardial infarction, and could not exclude harmful effects.

Nor did a recent Swedish study (2017) find any evidence for benefits of $O_2$ supplementation (6 L/min supplied through an open face mask) to patients with a suspected acute myocardial infarction and an $O_2$ saturation rate of >90%, compared to merely breathing the ambient air, assessed in terms of one-year mortality rates.

The lack of evidence for efficacy and the risk of counterproductive or harmful effects are sufficient reasons to be reticent about $O_2$ supplementation to patients with acute symptomatology in general, and suspected or confirmed myocardial infarction in particular.

Literature references


The literature refers to the Dutch text

Authors

* dr H.J.E.M. Janssens