

Recent advances in the treatment of depression and the risk of myocardial infarction.

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Abstract

Myocardial Infarction (MI), also referred to as a "heart attack," is brought on by a partial or total interruption of blood supply to the myocardium. Myocardial infarction can either be "silent" or go undiagnosed, or it can be a catastrophic occurrence that causes hemodynamic decline and sudden death. The primary cause of death in the United States and the underlying cause of the majority of myocardial infarctions is coronary artery disease. Coronary artery blockage deprives the myocardium of oxygen. Myocardial necrosis and cell death can occur if the myocardium is continuously deprived of oxygen

Keywords: Myocardial infarction, Depression, Mortality, Cell death.

Introduction

A considerably higher incidence of MI and cardiovascular mortality is linked to depression. Such risk might be reduced by effective depression prevention and treatment. In the United States, 26% of women and 18% of men suffer with depression, another prevalent condition. Numerous researches have looked at how depression affects the risk of CHD, particularly how it may affect Myocardial Infarction (MI) and coronary mortality. However, the outcomes of earlier meta-analyses and reviews have been mixed. These meta-analyses either contained studies that did not follow a prospective design, a distinct subset of studies that were accessible, or studies with varied heart disease outcomes. None have provided a thorough analysis of all the pertinent data from prospective cohort studies to look into the relationship between depression and the risk of MI or CHD-related death.

This meta-analysis only included original prospective cohort studies that examined the impact of depression on the risk of MI or CHD mortality, in which depression is the predictor and MI or CHD death is the outcome, because of the bidirectional association between depression and CHD. Cross-sectional studies and case-control analyses were not included.

Depressive mood as judged by a standardized psychometric tool or unipolar depression as determined by clinical diagnosis qualified as eligible exposures. The terms depression in this meta-analysis include clinical depression, depressive condition, and depressive mood. Exclusions included bipolar depression and bipolar depressive disorder. Either a fatal or nonfatal MI or a death from CHD qualified as eligible outcomes. Because several studies have shown that some people with depression report experiencing chest discomfort

but have healthy coronary arteries, we removed angina pectoris from our analysis.

In Post-Myocardial Infarction (MI) patients with depression, Treatment Resistant Depression (TRD) was linked to higher mortality. On the other hand, effective depression management with cognitive behavioural therapy, with or without medication, reduced mortality in depressed post-MI patients. Closer monitoring, more active depression treatment, and risk factor reduction are required for TRD post-MI patients since they have a higher mortality risk. To lessen depression and enhance cardiac outcomes in post-MI patients with depression, it is crucial to assess the efficacy of medication and alter it as needed.

Clinical research demonstrates that not all depressed people benefit optimally from treatment. Approximately 50% of depressive patients have an adequate response to antidepressant therapy, 15% had a partial response, and 20%-35% did not react to depression treatment, according to a meta-analysis of 36 clinical trials. Patients who do not respond well enough to treatment are classified as resistant to it. When at least two antidepressant medication trials with adequate dosage, duration, and compliance failed to significantly alter the clinical course of depressive symptoms, depression was deemed treatment resistant.

Conclusion

A higher incidence of MI and cardiovascular mortality is notably linked to depression. The found connection between depression and MI and coronary death has significant public health implications given the high prevalence of depression and the incidence of MI and CHD mortality globally. Globally, the risk of MI and cardiovascular mortality may be significantly reduced with the prevention and treatment of depression.

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References

1. Lu L, Liu M, Sun R, et al. Myocardial infarction: Symptoms and treatments. *Cell Biochem Biophys*. 2015;72:865-7.
2. Rugulies R. Depression as a predictor for coronary heart disease: A review and meta-analysis. *Am J Prev Med*. 2002;23:51-61.
3. Maron DJ, Hochman JS, Reynolds HR, et al. Initial invasive or conservative strategy for stable coronary disease. *New Engl J Med*. 2020;382(15):1395-407.
4. Barth J, Schumacher M, Herrmann-Lingen C. Depression as a risk factor for mortality in patients with coronary heart disease: A meta-analysis. *Psychosom Med*. 2004;66:802-13.
5. Mariani S, Formica F, Paolini G. Mechanical complications of myocardial infarction: Coronary Artery Disease-Assessment, Surgery, Prevention. *IntechOpen*. 2015:215-44.