

A Focused Literature Review on Treatment of Depression in Cardiac Patients: Exercise versus Antidepressants

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Abstract

Background: Depression and heart disease are prevalent across the general population and are among the most debilitating diseases. Cardiac depression is a type of depression that may develop after a cardiac event. When left untreated, depressed patients tend to have poorer outcomes compared to cardiac patients without depressive symptoms. On average twenty-five percent of patients who experience a myocardial infarction will also develop depressive symptoms. Previous studies show a statistically significant association between myocardial infarction (MI) and depression. Patients with a history of previous depression had an elevated risk of subsequent cardiovascular events and mortality. Among cardiac diseases, MI patients had the highest risk of psychiatric outcomes. The need for early recognition and effective treatment of cardiac depression is vital to the future health of the patient. The purpose of this review is to compare two common treatments of cardiac depression: exercise and antidepressant therapy. **Methods:** Search results for Pub Med produced twenty-five records, sixteen records were excluded through title review, three records were excluded through abstract review. The remaining six records were assessed by full text review of which zero records were excluded. Six articles were included in this review due to their exacting subject matter and valued contribution. **Results:** Antidepressant users had a 30% reduced risk of a major adverse cardiovascular event (HR=0.674; 95% CI (0.440, 1.033); p = .07. In addition, results suggested that antidepressant use may provide some protection against cardiovascular disease. In studies on exercise, exercise capacity had an inverse association with nonfatal myocardial infarction (MI) and all-cause mortality. In fully adjusted models' results ≥ 12 metabolic equivalents of tasks (METs) demonstrated a lower all-cause mortality, increased stamina, and decreased non-fatal MI. **Conclusion:** More studies are needed to determine if treatment of depression lowers the risk of future cardiac events. This review concludes that in treatment of mild to moderate depressive symptoms, exercise was safe, effective, and comparable to pharmacotherapy. Best improvements were seen when properly prescribed antidepressants were used in conjunction with a well-planned exercise program. Despite the evidence, only 15% of acute myocardial infarction patients with depression are identified and treatment of depression is often not addressed. Future directions to evaluate the complications of cardiac depression must include cooperation between cardiologists and mental health professionals to better identify cardiac patients with depressive symptoms. Additionally, insurance limitations on patients with cardiac depression must be examined.

Keywords: cardiac depression, anti depression medication, exercise capacity, nonfatal myocardial infarction, selective serotonin reuptake inhibitors, metabolic equivalents of tasks, major depressive disorder, all-cause mortality.

Introduction

According to the Center for Disease Control and Prevention (CDC), heart disease is the world's leading cause of death with myocardial infarctions (also known as heart attacks) at the top of the list. In the United States, over 805,000 heart attacks occur each year (CDC., 2025). This equates to a frequency of a heart attack occurring every 40 seconds (CDC., 2025). Myocardial infarctions happen when blood-flow to the heart muscle is blocked, and one or more areas of the heart muscle is deprived of oxygen (John Hopkins Medicine, 2023). Once the blood and oxygen are cut off, the cells within the heart muscle begin to suffer and die. If the lack of oxygen lasts for 30 minutes or more, the damage may become irreversible, and the heart muscle may lose its ability to function normally or at all (John Hopkins Medicine, 2023).

The actual cause of the blocked blood flow is often due to a buildup of arterial plaque deposits made of cholesterol. When a piece of the plaque ruptures, a blood clot forms blocking the flow of blood to the heart (John Hopkins Medicine, 2023).

There are many risk factors that contribute to myocardial infarctions (Ziegelstein et al., 2023). People at highest risk may have higher levels of LDL cholesterol, lower levels of HDL and elevated levels of triglycerides. Lifestyle, heredity, gender, and age contribute to higher risk levels (Ziegelstein et al., 2023). Depression is also a significant risk factor in cardiovascular patients. Like cardiac disease, depression is among the leading health issues worldwide (Celano & Huffman et al., 2011). According to the World Health Organization (WHO), depression is considered the second highest cause of disability and death surpassed only by heart disease (Serpytis et al., 2018). Up to 40% of cardiac patients suffer from depression with 30% of cardiac patients meeting the criteria for Major Depressive Disorder (MDD) (Celano & Huffman et al., 2011).

Among cardiac patients, depression is the highest determining factor in quality of life and adds an additional layer of suffering for patients facing the challenges of a myocardial infarction (Hare et al., 2014). When comparing myocardial infarctions with other types of cardiac disease, myocardial infarctions are associated with a high risk of psychological reactions (Hare et al., 2014). Heart disease and depression share many of the same symptoms. Fatigue, difficulty sleeping, difficulty performing daily tasks are overlapping symptoms of both conditions (Ziegelstein et al., 2023). This can mislead the patient and the cardiologist as to the true causation of symptoms, resulting in misdiagnosed, unrecognized, and untreated cardiac depression (Ziegelstein et al., 2023), (Hare et al., 2014).

It is agreed that depression and heart disease are prevalent across the general population and are among the most debilitating diseases (Ziegelstein et al., 2023). It is difficult to determine which of the two is the initiator of the other, however, the relationship between the two is well documented (Ziegelstein et al., 2023). Greater than twenty-five

percent of patients who experience a heart attack or myocardial infarction will be diagnosed with depression soon after (Ziegelstein et al., 2023). When including milder forms of depression, prevalence of more than 40% has been documented (Colquhoun et al., 2013).

Previous articles have acknowledged the 1967 Wynn study as the first to note the prevalence of unrecognized cardiac depression and the first to determine that over 40% of myocardial infarction patients exhibited depressive symptoms. The 1972 Cay et al study found depression and anxiety symptoms in over two-thirds of patients admitted for cardiac events (Hareet al., 2014). Diagnosis of depression may be complicated in cardiac patients due to many depressive symptoms being frequently identified in a variety of heart conditions. (Colquhoun et al., 2013). In addition, common drugs used in the treatment of cardiovascular disease mimic depressive symptoms such as fatigue, and lack of energy (Colquhoun et al., 2013). Cardiac patients often feel stigmatized by the diagnosis of depression and respond through withdrawal, avoidance, denial, and anxiety (Colquhoun et al., 2013).

Health care professionals should be aware that there are a variety of assessment tools for depression (Colquhoun et al., 2013). The Beck Depression Inventory (BDI) and the Patient Health Questionnaire-2 for screening and the Patient Health Questionnaire – 9, the Cardiac Depression Scale, as well as the Hospital Anxiety and Depression Scale (HADS) are frequently used self-reported questionnaires to identify persons who may be clinically depressed (Colquhoun et al., 2013). Clinician administered assessments include the Hamilton Rating Scale for Depression (HRSD) and the Structured Clinical Interview (SCID) for Diagnostic and Statistical Manual of Mental Disorders (DSM) (Colquhoun et al., 2013). Since the clinician administered assessment tools relies on clinical judgment, training is required (Colquhoun et al., 2013).

Depression is an important predictor of poor adherence to treatment plans (Colquhoun et al., 2013). Patients with depression are three times more likely to be non-compliant, a problem that intensifies with greater severity and chronicity of depression (Colquhoun et al., 2013). The more depressive symptoms persist, the less likely the patient will take steps to reduce risk behaviors such as quitting smoking, following treatment plans and attending cardiac rehabilitation (Colquhoun et al., 2013).

Depression outcomes are likely to improve if screening is followed by comprehensive care (Colquhoun et al., 2013). Despite this evidence, only 15% of acute myocardial infarction patients with depression are identified and treatment of depression is largely ignored (Vaccarino et al., 2008). Raising awareness of the importance of screening cardiac patients for depression is the first step in improving patient outcomes (Colquhoun et al., 2013). The need for early recognition and effective treatment of cardiac depression is vital to the future health of the patient. The purpose of this study is to identify peer reviewed

articles to make a comparison of results from the treatment of cardiac depression through exercise versus antidepressant therapy.

Methods

Search Strategy and Screening

The goal of this review is to make a comparison of results from the treatment of cardiac depression through exercise vs antidepressant therapy. To achieve this goal, a focused literature review was performed using PubMed to survey credible sources pertaining to treatment interventions (exercise and antidepressants) in cardiac patients experiencing depressive symptoms. Medical Subject Headings (MeSH) Terms included (myocardial infarction) and (depression) and (exercise) and (antidepressant). Search Formula MeSH terms are as follows:

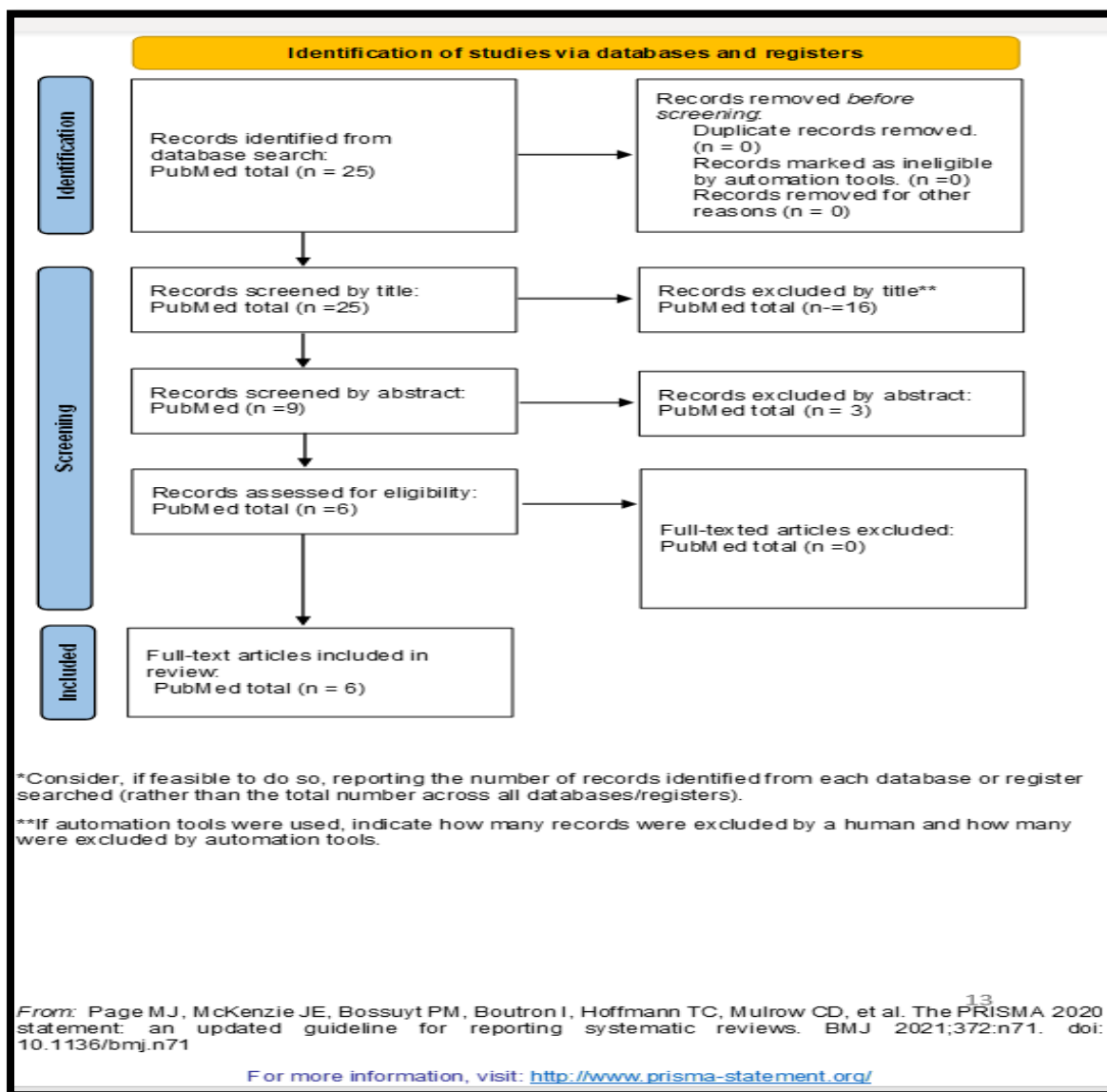
("myocardial infarction"[MeSH Terms] OR ("myocardial"[All Fields] AND "infarction"[All Fields]) OR "myocardial infarction"[All Fields]) AND ("depressed"[All Fields] OR "depression"[MeSH Terms] OR "depression"[All Fields] OR "depressions"[All Fields] OR "depression s"[All Fields] OR "depressive disorder"[MeSH Terms] OR ("depressive"[All Fields] AND "disorder"[All Fields]) OR "depressive disorder"[All Fields] OR "depressivity"[All Fields] OR "depressive"[All Fields] OR "depressively"[All Fields] OR "depressiveness"[All Fields] OR "depressives"[All Fields]) AND ("exercise"[MeSH Terms] OR "exercise"[All Fields] OR "exercises"[All Fields] OR "exercise therapy"[MeSH Terms] OR ("exercise"[All Fields] AND "therapy"[All Fields]) OR "exercise therapy"[All Fields] OR "exercising"[All Fields] OR "exercise s"[All Fields] OR "exercised"[All Fields] OR "exerciser"[All Fields] OR "exercisers"[All Fields]) AND ("antidepressant"[All Fields] OR "antidepressation"[All Fields] OR "antidepressive agents"[Pharmacological Action] OR "antidepressive agents"[MeSH Terms] OR ("antidepressive"[All Fields] AND "agents"[All Fields]) OR "antidepressive agents"[All Fields] OR "antidepressant"[All Fields] OR "antidepressants"[All Fields] OR "antidepressive"[All Fields] OR "antidepressives"[All Fields])

Search results for PubMed produced twenty-five records, sixteen records were excluded through title review, three records were excluded through abstract review. The remaining six records were assessed by full text review of which 0 records were excluded. A total of six articles were included in this targeted review due to their exacting subject matter and valued contribution to the primary purpose of the study. Articles were grouped as follows: Sauer, W. H. et al, and Lavoie, K. L. et al. classified under antidepressant data. Ahmed, A. M. et al. and Blumenthal J. A. et al., classified as exercise data. Studies by Colquhoun, D.

M. et al. and Shapiro, P. A. et al. included data on antidepressants, exercise, and other treatment options were categorized under overall data.

Figure 1

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework. Figure courtesy of the authors.



Results

The goal of this review is to make a focused comparison of results from the treatment of cardiac depression through exercise versus antidepressant therapy. Data was organized under three categories. Antidepressant Data, Exercise Data, and Overall Data.

Antidepressant Data

Studies categorized under Antidepressant Data (N=2) included Sauer W. H. et al. and Lavoie K. L. et al. (Table 1). Sauer W. H. et al. included a total of 653 participants who experienced a first-time myocardial infarction and 2990 participants that were included in the control group (Table 1). Under control subjects, 130 used selective serotonin reuptake inhibitors (SSRI) and 2820 did not use SSRI. Of the participants with the first Myocardial Infarction, 13 were SSRI users, and 635 were not SSRI users. In the SSRI user control group, the median age was 44.72 ± 7.58 , 24.6% males, 83.7% White, 10.9% Black, and 5.4% were other races (Table 1). In the SSRI nonuser control group, the median age was 43.60 ± 8.72 , 43.4% were males, 75.7% were White, 22.9% were Black and 3.4% were other races (Table 1). Interesting findings in unadjusted analysis demonstrated a significant association between SSRIs users and a reduction in the odds ratio for myocardial infarction (Table 1). For all SSRI users the Bivariable OR (95% CI) was 0.45 (0.25-0.80) and the SSRI users Multivariable OR (95% CI) 0.35(0.18-0.68) $P < 0.01$ (Table 1). For the no AD participants, the Bivariable OR (95% CI) was 1.58 (0.94-2.64) and non-SSRI users Multivariable OR (95% CI) was 1.04(0.56-1.95) $P = 0.90$ (Table 1). Key findings revealed a statistically significant association between SSRI use and reduction in cardiac events.

The Lavoie K. L. et al. study included a total of 2198 non-antidepressant users, and 190 antidepressant users (Table 1). The mean age was $56.8 [\pm 8.5]$ years, 67% were males, 99% were White, and 41% had a history of cardiovascular disease (CVD) (Table 1). Of the 2385 participants, 8% (N=190) used antidepressants at baseline. SSRIs were used by 70% of the antidepressant users (Table 1). Thirty-eight % participants (N=921) were depressed based on the PRIME-MD or BDI scales (Table 1). Interesting findings revealed participants using antidepressants had a 30% reduced risk of a major adverse cardiovascular event (MACE). (HR)=0.697; 95% CI (0.504, 0.964); $p = .029$. For those without cardiovascular disease, 68% reduction was seen. HR = 0.542; 95% CI (0.299, 0.984); $p = .043$ 9 (Table 1). In participants with depression, there was a 33% reduction of risk of MACE due to antidepressant use. HR=0.674; 95% CI (0.440, 1.033); $p = .07$ (Table 1). Key finding: the study concluded that antidepressant use may provide protection against CVD in patients with depression.

Exercise Data

Studies categorized under Exercise Data (N=2) included articles by Ahmed A. M. et al. and Blumenthal, J. A. et al. The Ahmed study included 5128 patients on antidepressant medication and who completed a medically indicated exercise stress test (Table 1). Exercise capacity had an inverse association with nonfatal MI and all-cause mortality (ACM). Compared to participants capable of reaching <6 metabolic equivalents of tasks

(METs), participants reaching a capacity ≥ 12 METs were more often younger (46 ± 9 vs 61 ± 12), more often male (60% vs 23%), less likely black (10% vs 27%) less likely to have Diabetes Mellitus, hypertension, or dyslipidemia (Table 1). Important findings showed fully adjusted models ≥ 12 METs demonstrated a lower all-cause mortality, increased exercise capacity, and decreased non-fatal MI (Table 1). This study emphasized the importance of assessing exercise-capacity in cardiac patients treated for depression, to identify patients at higher risk of ACM and non-fatal MI (Table 1).

Blumenthal, J. A. et al. assessed the effect of exercise on improving depressive symptoms in patients diagnosed with major depressive disorder (MDD). Both observational and interventional studies were included. Assessment of depression including severity was based on the following self-reported questionnaires: the Beck Depression Inventory (BDI), the Patient Health Questionnaires (PHQ-2) and (PHQ-9), the Hamilton Rating Scale for Depression (HRSD), the Hospital Anxiety and Depression Scale (HADS) and the Center for Epidemiologic Studies Depression Scale (CES-D) (Table 1). Important findings determined exercise was an effective treatment for depression comparable to psychotherapy and pharmacotherapy (Table 1). Results from observational studies indicated that the more active participants were, the less depressed they were. Likewise, results from interventional studies indicated that exercise was beneficial in the reduction of depression (Table 1). Key findings determined that no optimal amount of exercise was established and that even modest exercise showed beneficial results (Table 1).

Overall Data

Studies categorized under Overall Data (N=2) included articles by Shapiro, P.A. et al. and Colquhoun et al. The Shapiro study assessed the management of depression in myocardial patients between several treatment options. Important findings showed treatment of depression through exercise over a 12-month period produced modest beneficial effects on depression scores overall. Over a 30-month period, exercise had reduced risk of death or re-hospitalizations (Table 1). Exercise treatment was beneficial for depressive symptoms and medical outcomes (Table 1). Other interesting findings in this category revealed that regardless of benefits, exercise was underutilized as an effective treatment for depression after myocardial infarctions (Table 1).

Several antidepressants considered in this assessment produced key findings. Tricyclic antidepressants could worsen cardiac outcomes and are generally avoided for cardiac patients with depression (Table 1). Serotonin reuptake inhibitors (SSRIs) were the primary antidepressants, which were well tolerated with few side effects. SSRIs did have a twofold increase of bleeding in patients taking warfarin (Table 1). Except for Fluoxetine,

which was associated with an increase in mortality, SSRIs were associated with reduced risk of re-hospitalization (Table 1).

Colquhoun et al. echoed the need to avoid tricyclic antidepressants in the treatment of cardiac patients with depressive symptoms. Additionally, data showed SSRIs were well tolerated with low risk of adverse events when compared to placebo. SSRIs significantly improved depression with a 43% ($P < 0.005$) reduction in death or recurrence of MI (Table 1).

Table 1.

Results:

First Author date/group	Study Description	Participants	Main Findings	Other Significant Findings
Ahmed, Amjad M. (2018) Exercise Data	Exercise capacity measured in metabolic equivalents of task, associated with risk of all-cause mortality.	Total N= 5128 Participants per group. <6 METs, n = 873 6-9 METs, n=1634 10-11 METs, n=1904 >12 METs, n=717	Participants with ≥ 12 METs had lower all-cause mortality, were younger (46 ± 9 vs 61 ± 12), 60% vs 23% male, less likely black (10% vs 27%) less likely to have DM, Hypertension, Dyslipidemia.	In fully adjusted Cox proportional hazard models, exercise capacity was associated with lower ACM and nonfatal MI.
Blumenthal, James A. (2012) Exercise Data	Effects of exercise in improving depressive symptoms in patients with MDD.	Multi-study assessment: Observational and Interventional studies included in assessment. Comparison depression scores based on screening tools	No difference between exercise and antidepressant medication were revealed. (SMD=-0.04 [95%CI-0.31,0.24]). Depression is a cyclical disorder that may reemerge in the future even under an established exercise regimen resulting in an interruption of an exercise regimen.	Exercise was determined to be an effective treatment equal to psychotherapy and pharmacotherapy. Even modest exercise was beneficial
Colquhoun, D. M. (2013) Overall Data	Assessment of screening, referral, and treatment of depression in coronary heart disease patients.	Multi-study assessment:	SSRIs were well tolerated with low risk of adverse events when compared to placebo. SSRIs significantly improved depression with a 43% ($P < 0.005$) reduction in death or recurrence of MI.	Tricyclic antidepressants may worsen CHD outcomes.
Lavoie, Kim L. (2018) Anti-depressant data.	The objective was to assess the association between depression treatment (antidepressants) and major adverse cardiovascular events.	2198 non-antidepressant users, and 190 antidepressant users. Mean age $56.8 [\pm 8.5]$ years. 67% were males, 99% were White, and 41% CVD.	30% reduced risk of (MACE). (HR)=0.697; 95% CI (0.504, 0.964); $p = .029$. Pts without cardiovascular disease, 68% reduction was seen. HR = 0.542; 95% CI (0.299, 0.984); $p = .043$. participants with depression, a 33% reduction of risk of MACE due to antidepressant use. HR=0.674; 95% CI (0.440, 1.033); $p = .07$	Study concluded that antidepressant use may provide protection against CVD in patients with depression.
Sauer, W. H. (2001) Antidepressant Data	Examine the possible association between SSRI and Lower risk of first nonfatal MI.	N= 653 MI Group N= 2990 Control user median age was 44.72 ± 7.58 , 24.6% males, 83.7% White, 10.9% Black, and 5.4% were other races. non-user control group, the median age was 43.60 ± 8.72 . 43.4% were males, 75.7% were White, 22.9% were Black	SSRI users the Bivariable OR (95% CI) was 0.45 (0.25-0.80) SSRI users Multivariable OR (95% CI) 0.35(0.18-0.68) $P < 0.01$ AD participants, the Bivariable OR (95% CI) was 1.58 (0.94-2.64) non-SSRI users Multivariable OR (95% CI) was 1.04(0.56-1.95) $P = 0.90$.	Data demonstrated a statistically significant association between SSRI use and reduction in cardiac events.
Shapiro P.A. (2015) Overall Data	Assessment of management of depression in myocardial patients between several treatment options	Multi Study assessment: Exercise group Antidepressant group	Treatment of depression through exercise over a 12-month period produced modest beneficial effects on depression scores overall. Over a 30-month period, exercise had reduced risk of death or re-hospitalizations. Serotonin reuptake inhibitors (SSRIs), the primary antidepressants, were well tolerated with few side effects. SSRIs did have a twofold increase of bleeding in patients taking warfarin.	Exercise was underutilized as an effective treatment for depression. Fluoxetine was associated with an increase in mortality, SSRIs were associated with reduced risk of re-hospitalization.

Discussion

The purpose of this review is to compare results of previous studies on the treatment of cardiac depression in patients using antidepressants versus daily exercise.

Antidepressant Data

In studies categorized under Antidepressant Data, SSRIs were the primary antidepressants used in treatment of depression in cardiac patients. SSRIs were effective treatment for depression and showed fewer negative side effects when compared to other antidepressants (Sauer, W. H. et al., 2001) (Lavoie, K. L. et al. 2018). Key findings suggest that SSRIs inhibited platelet activity which resulted in a lower risk of myocardial infarction (Sauer, W. H. et al., 2021) (Lavoie, K. L. et al. 2018). The authors hypothesized that the reduction in platelet activity may be due to a reverse effect SSRI has on platelet function seen in patients with depression (Sauer, W. H. et al., 2001). SSRIs inhibit serotonin uptake into platelets blocking intracellular calcium mobilization, lowering platelet activity and reducing the risk of myocardial infarction (Sauer, W. H. et al., 2001) (Lavoie, K. L. et al. 2018).

Participants using antidepressants had a 30% reduced risk of major adverse cardiovascular events (Lavoie, K. L. et al. 2018). For participants who had not experienced a cardiovascular event data resulted in a 68% reduction in major adverse cardiovascular events (Lavoie, K. L. et al. 2018). These findings suggest that antidepressants not only offer protection against CVD for the cardiac patient but offer an even greater percentage of preventative protection to noncardiac patients' years before the recognition of a cardiac disease (Lavoie, K. L. et al. 2018).

The key finding demonstrated that SSRI treatment significantly improved depression and substantially lowered risk of death or recurrence of MI (Sauer, W. H. et al., 2001) (Lavoie, K. L. et al. 2018). Included among several other studies that supported these findings is the 2013 study by Yekhehtaz, H. et al. and a study cited in March of 2015 by the American College of Cardiology and performed by the Intermountain Medical Center in Salt Lake City.

Exercise Data

In studies categorized under Exercise Data, exercise capacity had an inverse association with nonfatal MI and all-cause mortality (Ahmed A.M. et al. 2018). In fully adjusted models' results ≥ 12 METs demonstrated a lower all-cause mortality, increased stamina, and decreased non-fatal MI (Ahmed A.M. et al. 2018). In the treatment of mild to moderate depressive symptoms, exercise was a safe and effective treatment comparable to psychotherapy and pharmacotherapy. Results indicated that even modest exercise was beneficial (Blumenthal, J. A. et al. 2012). In patients being treated with antidepressants,

exercise treatment was beneficial for depressive symptoms, medical outcomes, and increased survival rates (Blumenthal, J. A. et al. 2012). Although most patients with cardiac depression are regularly seen by cardiologists, improving exercise capacity is seldom discussed or incorporated into their preventive cardiac care plan (Ahmed A.M. et al. 2018).

Overall Data

Studies categorized under Overall Data determined that regardless of benefits, exercise was underutilized as an effective treatment for depression after myocardial infarctions (Shapiro, P. A, 2015). Consistent adherence to an exercise therapy plan was most important. Modest beneficial effects on depression scales were seen after 12 months of exercise therapy (Shapiro, P. A, 2015). Reduced risk of death and decreased rehospitalizations were seen after 30 months of exercise therapy (Shapiro, P. A, 2015). Although well tolerated, effective, and offered some protection of future CVD, SSRIs did have negative side effects. SSRIs demonstrated a twofold increased bleeding in patients taking warfarin and fluoxetine was associated with an increased mortality rate (Shapiro, P. A, 2015). Additionally tricyclic antidepressants worsened cardiac outcomes and are generally avoided for cardiac patients with depression (Yekehtaz, H. et al. 2013) (Colquhoun, D. M. 2013).

Recommendations and Future Studies

Greater than twenty-five percent of patients who experience a heart attack or myocardial infarction will be diagnosed with depression soon after (Ziegelstein et al., 2023). Depression is an important predictor of poor adherence to treatment plans. Non-compliance is three times higher in patients with depression, a problem that intensifies with a greater severity and chronicity of depression. These studies reveal that the exercise capacity of patients being treated with antidepressants demonstrated an increased survival rate. Studies concluded that in treatment of mild to moderate depressive symptoms, exercise was safe and effective, with results similar to psychotherapy and pharmacotherapy. More must be done to broaden the perspectives of medical personnel on utilization of exercise in cardiac patients with depression. Best improvements were seen when properly prescribed antidepressants were used in conjunction with a well-planned exercise program.

When prescribed properly, SSRIs were well tolerated with low risk of adverse events when compared to placebo. SSRIs significantly improved depression and lowered risk of death, recurrence of MI, and provided some protection against CVD. These benefits should not be overlooked when treating patients with cardiac depression.

Previous studies conclude there is a sufficient consensus that depression is a risk factor and an important prognostic indicator in cardiac patients. Additionally, this review confirmed that there are adequate screening tools and treatment options available. This evidence has not been utilized often enough in clinical care. Cardiac depression is still underrecognized and undertreated. Only 15% of acute myocardial infarction patients with depression are identified and treatment of depression is often not addressed (Vaccarino 2008). Possible reasons include, studies have not demonstrated that treatment of depression will improve cardiovascular outcomes and there are limitations in insurance coverage and reimbursements. Additional complications include mental health issues fall under the domain of mental health and treatments for depression may be gender specific (Vaccarino 2008).

More studies need to be undertaken to provide current evidence that the treatment of cardiac depression will improve cardiovascular outcomes. Future studies are recommended to include randomized controlled trials to study gender specific responses to treatments for depression in cardiac patients. Insurance coverage limits should be reevaluated to properly reimburse cardiac patients with depressive symptoms. Finally, both cardiologists and mental health professionals can come together under one goal to completely address the complications of cardiac depression.

The American College of Cardiology and the American Heart Association recommend evaluation of depressive symptoms in cardiac patients (Jha et al., 2019). These recommendations must be adhered to for the good of the patient. Cardiac depression can no longer be ignored.

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