Detecting and managing depression in patients with cardiac disease

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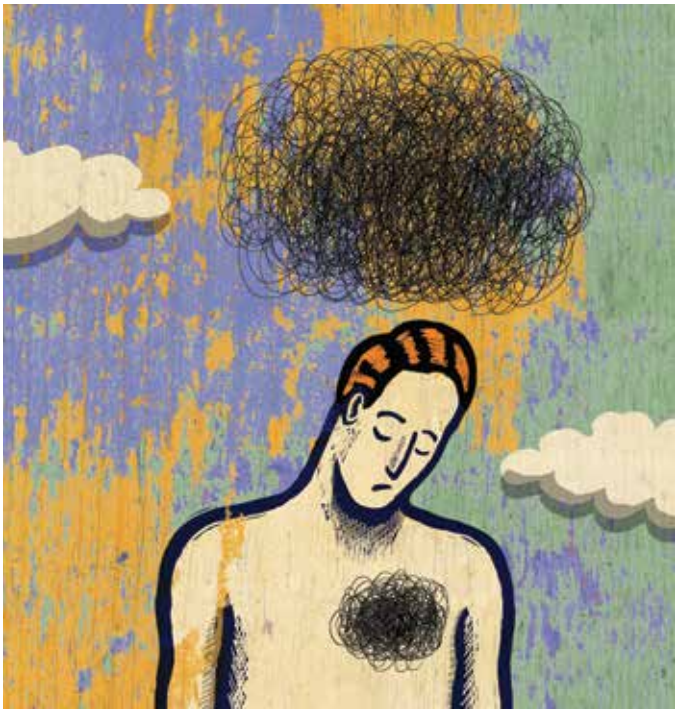
Depression is common in patients with cardiac disease, is associated with increased risk of mortality and morbidity, and is the major driver of quality of life. Depression is also a major determinant of adherence to treatment strategies. It is therefore important that depressive symptoms are recognised and treated early in patients with cardiac disease.

Coronary heart disease (CHD) and depression are the two most common causes of disability in all higher income countries, and likely to be so in all other countries by 2030.[1] Patients with CHD have twice the prevalence of depression compared with the general community. Patients with chronic heart failure (CHF) have an even higher prevalence of depression, over three times that of the general community. This is related to the degree of functional limitation, with the prevalence of depression ranging from 10% in asymptomatic patients to over 40% in patients with severe symptoms of CHF.[2]

Depression is not only the major driver of quality of life but also a major determinant of adherence to treatment strategies for CHD.[3] Thus detection and management of depression is extremely important in patients with CHD.[4] Although this problem is one for all those involved in the health care of patients with cardiac disease, it particularly falls on GPs to manage. Only 3% of cardiologists in Australia actually screen patients for depression, with most thinking that this task is one for the GP.[5]



Key points

- **Depression is common in patients with cardiovascular disease and is associated with a greater risk of morbidity and mortality.**
- **Early detection and management of depression is critical for optimising patient prognosis and quality of life.**
- **GPs should screen their patients with cardiac disease for depression, either by clinical questioning or by a screening questionnaire.**
- **The Cardiac Depression Scale-Short Form (DS-SF) is a fast, reliable and sensitive index of depression that can be completed in the waiting room before the GP consultation.**
- **Depressed patients may require intervention (such as pharmacotherapy, psychotherapy or exercise), which can be managed by the GP or a specialist.**

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Table. Depression Scale-Short Form[19]

1. My sleep is restless and disturbed	1 Not restless	2	3	4	5	6	7 Very restless
2. I feel in poor spirits	1 Excellent spirits	2	3	4	5	6	7 Very poor spirits
3. I become tearful easily	1 Not at all tearful	2	3	4	5	6	7 Very easily tearful
4. I feel frustrated	1 Not at all frustrated	2	3	4	5	6	7 Extremely frustrated
5. I get little pleasure from life at present	1 Great pleasure	2	3	4	5	6	7 No pleasure

Depression and cardiac disease – what's the link?

Depression is a well known independent risk marker for the development of new CHD and for prognosis in existing patients with CHD.[6] Mostly it would appear that the depression follows the onset of the heart disease.[7] However, there is a large body of evidence suggesting that the depression might also actually contribute to the later development of the CHD itself and also to a poorer prognosis of existing CHD.[8] Either way, the problem is an extremely important one.

Currently, causal factors to explain the contribution of depression to the development of the cardiac disease remain elusive,[9] although several candidate pathophysiological mechanisms (including disturbance to autonomic nervous system and platelet function) are likely to be important. It is likely that the relation is multifactorial. From the point of view of the cardiac disease worsening depression, the psychological meaning of the cardiac condition itself is clearly important. In addition, the partner of the patient plays an important role, as evidenced by the association between partner depression and higher patient depression.[10]

Depression often develops in the context of cardiac disease; however, it is not a 'normal' feature of the disease per se.[11] Acute coronary events often provoke patient fear and anxiety about their perceived mortality and future disability.[7] In many patients with CHD, health-related anxiety and sadness will constitute a level of emotional distress equating to a common, but transient, 'adjustment disorder with depressed mood'.[8]

Mild depressive symptoms will usually resolve in most patients within two months following a cardiac event with cardiac rehabilitation, optimal medical treatment and access to social and emotional support.[12,13] However, at least one in five patients with cardiac disease will develop a psychiatric comorbidity,[14] such as a major depressive disorder, that does not remit without intervention. Given the poorer prognosis for depressed patients with cardiac disease, it is important that depressive symptoms are recognised and treated early. Unfortunately, most patients do not present with a disclosure of their depression. It is commonly masked behind denial or symptoms that are mistaken for those of the cardiac disease and its pharmacological treatment.[4,8] GPs should therefore screen for depression in patients with cardiac disease, either by clinical questioning or by a screening questionnaire.

Detecting depression in patients with cardiac disease

Challenges in diagnosing depression

When depression arises in the context of cardiac disease, it can be difficult to diagnose. For instance, fatigue, sleep disturbance and poor concentration are shared features of both depression and cardiac disease.[11] When diagnosing depression, it is also important to consider other medical conditions or treatments that might produce symptoms similar to some features of depression. For example, β-blocker therapy can produce fatigue and occasionally sleep disturbance. Patients with hypothyroidism, chronic kidney disease and anaemia can present with fatigue. Fatigue, depressed mood, reduced appetite and weight loss are also presenting symptoms in patients with pancreatic cancer. It is therefore important that other medical conditions are excluded when diagnosing depression.

The challenge to identify depressive symptoms in medically ill populations can be further compounded by patient masking (such as denial, bravado and irritability)[8] and alexithymia.[15] This suggests that some people are unable to 'read' their own mood and therefore can have depressive symptoms without realising it. There is also

some evidence that some aspects of depression such as anhedonia (or lack of pleasure) contribute more to the increased mortality of depressed patients with cardiac disease.[16] Therefore, multidimensional screening instruments that include a combination of affective/somatic symptoms are likely to be more sensitive to depression in cardiac disease settings,[7] rather than a single question such as 'Are you feeling depressed?'.

How to ask patients about depressive symptoms

To uncover depression, it is useful to make nonconfronting statements, such as 'it is not uncommon for people in this situation to feel flat or down'. This directs the issue away from the patient to the 'general' person and also weakens the adjective 'depression' down to feeling 'flat'. Subsequently the issue can be brought around to the patient directly and the adjectives strengthened. Another useful technique is to start with more 'physical' symptoms, such as waking at night, moving forward to morning fatigue, and then on towards the question of 'depression'.

Screening tools for depression

As recommended by the National Heart Foundation of Australia, and endorsed by the Royal Australian College of General Practitioners, best practice management of cardiac disease includes screening for depression.[17] Screening tools include the Physical Health Questionnaire (either the nine-question form or just the first two principal questions), the Beck Depression Inventory and the Cardiac Depression Scale (CDS).[7] Notably, the CDS was designed to assess the full continuum of depressive symptoms in populations of patients with cardiac disease, has excellent reliability, sensitivity and specificity,[18] and is free to use. A five-item CDS (the Depression Scale-Short Form [DS-SF]) has also been validated and serves as an ideal complement to routine clinical care as it takes approximately 60 seconds to complete,[19] with minimal guidance before physician consultation (see Table).

Although the full CDS (taking about five minutes to complete) has an extremely high 97% sensitivity for detecting major depression with a specificity of 87%,[18] a score of 17 or more on the five-question DS-SF form still has 91% sensitivity and 82% specificity for detecting major depression, rendering it a very useful screening tool.[19] Patients with these higher scores require additional attention from the GP.

Treating depression in patients with cardiac disease

Although some patients with cardiac disease spontaneously improve with comprehensive clinical care, others have more severe or persistent depression that requires specific treatment. Thus patients should be rescreened after two months and, unless they have low levels of depression and a stable clinical condition, depression screening should be repeated on an annual basis.

The treatment modalities that improve depression in populations without cardiac disease generally work in patients with cardiac disease. Although patients with CHF have more frequent and severe depression than most patients with coronary artery disease, the best modes of therapy remain unclear.

Management of depression will often include the introduction of other therapies such as antidepressant medication, cognitive behavioural therapy or a formal exercise program, all of which have been demonstrated to be of some benefit in clinical trials. Some patients will need referral to other professionals but this will partly depend on how comfortable the GP feels in managing the situation. If the patient has severe symptoms of depression or expresses suicidal ideation, referral to a specialist mental health clinician is advisable.

A repeat depression questionnaire score should also be obtained to see how the patient is responding to therapy. In particular, the patient's response to pharmacotherapy for depression as prescribed by their GP should be monitored. This should involve a discussion of current depressive symptoms and the experience and severity of any side effects. Use of tricyclic antidepressants should be avoided in all patients with CHF and in some patients with CHD, largely because of the effects on prolonging QT duration and risk of tachyarrhythmias.

Use of selective serotonin reuptake inhibitors has been demonstrated to reduce depression in patients with coronary artery disease, especially those with more severe or recurrent depression.[14,20,21] The side effect profile of selective serotonin reuptake inhibitors is low but in general patients should start with small doses, uptitrating over two months. The initial target doses are kept low to begin with, for example 40 mg of citalopram or 20 mg of escitalopram, for reasons of safety. So far there is still no evidence that improvement in depression translates into a reduction in cardiac events. Formal exercise programs have been demonstrated to be as effective as treatment with selective serotonin reuptake inhibitors.[22] Many patients require both.

Summary

Depression in patients with cardiac disease is a common but treatable condition that occurs in between 10% and 40% of patients with cardiac disease. Comorbid depression and heart disease are associated with poorer prognosis, reduced quality of life and shortened life expectancy. Recognition and treatment of depressive symptoms is an essential component of best practice management of cardiac disease. **CT**

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