Treating low perceived social support and depression after myocardial infarction does not increase event-free survival


Does treating depression and low perceived social support (LPSS) with cognitive behaviour therapy and, where indicated, a selective serotonin reuptake inhibitor (SSRI) within 28 days of myocardial infarction (MI) reduce risk of subsequent MI and death?

MAIN RESULTS

At 29 months, there was no significant difference between the treatment and usual care groups for the primary outcome (recurrent MI or death: 24% v 24%; hazard ratio 1.01; 95% CI 0.86 to 1.18). At 6 months, (see table) the treatment intervention improved psychosocial outcomes compared with usual care (p<0.001). These differences were not maintained at 30 months for BDI or at 42 months for ESSI scores.

CONCLUSION

Although the intervention may improve depression and LPSS after MI in the short term, it does not decrease the risk of recurrent MI and death.

<table>
<thead>
<tr>
<th>Mean BDI score</th>
<th>Mean ESSI score</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>6 months</td>
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<tr>
<td>Treatment</td>
<td>15.7</td>
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<tr>
<td>Usual care</td>
<td>15.7</td>
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Commentary

The rationale for the ENRICHD trial was clear and convincing. Coronary heart disease (CHD) is a major cause of morbidity and mortality; depression and low perceived social support are clearly associated with worse outcome in patients with CHD; and there are treatments of proven effectiveness for depression. An intervention that can reduce depression and improve perceived social support should, therefore, reduce cardiac mortality following myocardial infarction (MI).

The ENRICHD investigators carefully developed an intensive, multifaceted, individually tailored intervention. They then sought to demonstrate that it would significantly reduce mortality in the largest trial of psychological therapy ever conducted. Disappointingly, the intervention did not affect their primary outcome of death or non-fatal infarction.

Debate is underway on the explanation for this negative result, and is focusing on the power of the trial. The smallest of the four ISIS trials had over 16000 participants, and cardiology has led the way in the design and implementation of large RCTs. Despite randomising 2500 patients, it is possible that the ENRICHD trial was underpowered. The estimate of effect size was probably optimistic, due to significant improvements in the "usual care" management of depression in the years since the trial was designed. The results may therefore not represent evidence of no effect, and this is supported by significant improvements in depression and perceived social support at six months in the intervention group.

So how should cardiology and primary care services manage post-MI patients who might be depressed? There is increasing interest in the development of effective systems of care for depression. This trend has mirrored that in cardiac rehabilitation, and in both settings there is now good evidence for the provision of systematic and structured care.

Integrating management of depression with cardiac rehabilitation makes good clinical sense. Despite the ENRICHD trial, the effective identification and treatment of depression remains an important part of rehabilitation following MI.

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