Review: some evidence suggests that cognitive behaviour therapy may reduce chest pain in the short term in patients with non-specific chest pain and normal coronary anatomy


Are psychological treatments effective for patients with non-specific chest pain and normal coronary anatomy?

METHODS

Data sources: Cochrane Review Group Specialised registers (November 2002); Cochrane Library (Issue 3, 2002); Medline (1966–2002); CINAHL (1982–2002); EMBASE/Excerpta Medica (1980–2002); PsycINFO (1887–2002); Biological Abstracts BIOSIS (1990–2002); reference lists of relevant studies and reviews; abstracts from cardiology, psychiatry, and psychiatry conferences; and personal communication with authors.

Study selection and assessment: randomised controlled trials (RCTs) that compared psychological interventions (cognitive behaviour therapy [CBT], relaxation therapy, hyperventilation control, or other psychotherapies, talking, or counselling therapy) with standard care, an attention placebo, or no intervention in patients with non-specific chest pain, atypical chest pain, or syndrome X and normal coronary anatomy. Patients receiving drug treatment for psychiatric disorders were excluded. Individual study quality was assessed based on randomisation, allocation concealment, blinding, and loss to follow up.

Outcomes: significant reduction in chest pain (pain intensity measured by categorical or visual analogue scales, or mean difference in pain scores or frequency of exacerbation).

MAIN RESULTS

8 RCTs (403 outpatients) met the selection criteria. Interventions assessed were CBT, brief nurse intervention, relaxation training, and breathing retraining. Follow up ranged from 3–36 months, and 5 trials had >80% follow up.

Meta-analysis using a fixed effects model showed that more patients who received psychological interventions (specifically CBT) had reductions in chest pain than those in the control group at 3 months and at 3–9 months (Table). Similar results were found using a random effects model. Meta-analysis of 2 trials (n = 81) also showed that patients who received psychological interventions had a greater increase in chest pain free days at ≤3 months (standardised mean difference [SMD] 0.85; 95% CI 0.38 to 1.31).

Meta-analysis using a fixed effects model showed that patients who received CBT or guided re-breathing had greater reductions in chest pain frequency than those in the control group at 3 months (5 trials, n = 201, SMD = −0.87; CI = −1.18 to −0.57) and at 3–9 months (3 trials, n = 124, SMD = −0.43; CI = −0.79 to −0.07). However, analysis using a random effects model did not find significant differences between groups (SMD = −0.83, CI = −1.77 to 0.12 at 3 mo; −0.36, CI = −0.90 to 0.18 at 3–9 mo).

CONCLUSIONS

Limited evidence exists on the effectiveness of psychological interventions for patients with non-specific chest pain and normal coronary anatomy. Some evidence suggests that cognitive behaviour therapy may reduce chest pain for up to 3–9 months.

Cognitive behaviour therapy (CBT) v control in patients with non-specific chest pain and normal coronary anatomy

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Number of trials</th>
<th>CBT</th>
<th>Control</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest pain at 3 months</td>
<td>3 (172)</td>
<td>64%</td>
<td>93%</td>
<td>32% (19 to 43)</td>
<td>4 (3 to 6)</td>
</tr>
<tr>
<td>Chest pain at 3–9 months</td>
<td>2 (111)</td>
<td>54%</td>
<td>93%</td>
<td>42% (24 to 55)</td>
<td>3 (2 to 5)</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; weighted event rates, RRR, NNT, and CI calculated from data in article.
Review: some evidence suggests that cognitive behaviour therapy may reduce chest pain in the short term in patients with non-specific chest pain and normal coronary anatomy

*Evid Based Nurs* 2005 8: 113
doi: 10.1136/ebn.8.4.113

Updated information and services can be found at:
http://ebn.bmj.com/content/8/4/113

These include:

**References**
This article cites 1 articles, 0 of which you can access for free at:
http://ebn.bmj.com/content/8/4/113#BIBL

**Email alerting service**
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

**Topic Collections**
Articles on similar topics can be found in the following collections

- Pain (neurology) (320)
- Psychotherapy (41)
- Complementary medicine (71)
- Drugs: cardiovascular system (278)
- Internet (396)
- Ischaemic heart disease (121)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/