Acupuncture for GI endoscopy: a systematic review
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CRD summary
This review assessed the effectiveness of acupuncture for support during gastrointestinal endoscopy. The authors concluded that acupuncture may have an effect similar to conventional premedication but a greater effect than sham acupuncture, but more research is required. The authors’ cautious conclusions correctly reflect the limited evidence from a small number of studies of variable quality.

Authors’ objectives
To assess the effectiveness of acupuncture as a supportive intervention during gastrointestinal (GI) endoscopy.

Searching
MEDLINE, AMED, British Nursing Index, CINAHL, EMBASE, PsycINFO, and the Cochrane Library were searched from inception to November 2003, using the search terms listed in the paper. The reference lists of all identified reports were checked and personal files were searched manually.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs) were eligible for inclusion.

Specific interventions included in the review
Studies of acupuncture, electro-acupuncture or auricular acupuncture that involved needle insertion were eligible for inclusion. The studies were required to use sham acupuncture, conventional premedication or no conventional treatment as the comparator. All of the included studies used body acupuncture; some studies also used ear acupuncture. Acupuncture treatment was started 5 to 20 minutes before endoscopic examination and continued throughout the procedure. Conventional premedication included midazolam, scopolamine and meperidine.

Participants included in the review
Studies of individuals undergoing GI endoscopy were eligible for inclusion. The included participants were undergoing colonoscopy or upper GI endoscopy for diagnosis.

Outcomes assessed in the review
No inclusion criteria were specified. The included studies used a variety of methods to measure pain, discomfort and tolerance of the procedure (details were reported).

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
Validity was assessed and scored using a modified version of the Jadad scale, which evaluated reporting of randomisation, blinding (patient and evaluator) and withdrawals. The maximum possible score was 5 points. Studies scoring 4 or 5 points were considered high quality. Two reviewers assessed the validity of the primary studies. Any disagreements were resolved through discussion.

Data extraction
Two reviewers extracted the data using a predefined form. Any disagreements were resolved through discussion.
Methods of synthesis
How were the studies combined?
The studies were combined in a narrative, grouped by method of acupuncture.

How were differences between studies investigated?
Differences between the studies were discussed with respect to study characteristics including quality.

Results of the review
Six RCTs (n=512) were included.

Two studies received a quality score of 4, one received a score of 3 and another of 2, and two scored 1.

The two highest quality studies found that electro-acupuncture reduced pain, dosage of sedative drugs given and discomfort, and improved tolerance compared with sham acupuncture.

Other studies found that manual acupuncture demonstrated a similar effect to conventional premedication (1 study) or no sedation (1 study) in improving discomfort and tolerance. The two lowest quality studies found that manual acupuncture or electro-acupuncture plus manual acupuncture had an analgesic effect similar to conventional premedication. Acupuncture was also found to significantly reduce dizziness in these last two trials.

Authors’ conclusions
There was limited evidence to suggest that acupuncture may have an effect similar to conventional premedication but a greater effect than sham acupuncture. More research is required.

CRD commentary
The review addressed a clear question in terms of the participants, intervention and study design. Inclusion criteria were not specified for the outcomes. Several relevant sources were searched, unrestricted by language, and limited attempts were made to locate unpublished studies, thereby reducing the likelihood of publication bias. While appropriate methods were used to minimise bias in the validity assessment and data extraction of data processes, the methods used to select the primary studies were not well described, thus it is not known whether any efforts were made to reduce reviewer error and bias at this stage. Validity was assessed using established criteria, although the scoring system used to classify studies did not take account of the validity of methods used to assess the outcomes. The narrative synthesis was appropriate given the differences among the studies, and the synthesis took study validity into consideration. The authors’ cautious conclusions correctly reflect the limited evidence from a small number of studies of variable quality.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that there is a need for adequately powered well-conducted studies that use a clearly defined clinically relevant measure to assess outcomes to determine the place of acupuncture in GI endoscopy. They stated that future research should include prospective studies to assess the risks and cost-effectiveness of acupuncture compared with conscious sedation, and that ambulatory patients should be included.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.