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Alexander technique for chronic asthma (Review)

Dennis JA, Cates CJ

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[Intervention Review]

Alexander technique for chronic asthma

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ABSTRACT

Background

'The Alexander technique' is a taught form of therapy involving a series of movements designed to correct posture and bring the body into natural alignment with the object of helping it to function efficiently, and is reported to aid relaxation. Some practitioners claim benefits for those who desire greater ease and efficiency of breathing, including asthmatics.

Objectives

The objective of this review was to evaluate the efficacy of the Alexander technique in people with chronic, stable asthma.

Search methods

We searched the Cochrane Airways Group Specialised Register, the Cochrane Complementary Medicine Field trials register and the bibliographies of relevant articles. The most recent search was run in June 2012.

Selection criteria

Randomised controlled trials of Alexander technique (AT) for the improvement of the symptoms of chronic, stable asthma, comparing the treatment with either another intervention or no intervention.

Data collection and analysis

No trials were found that met the selection criteria.

Main results

No meta-analysis could be performed.

Authors' conclusions

Robust, well-designed randomised controlled trials are required in order to test claims by practitioners that AT can have a positive effect on the symptoms of chronic asthma and thereby help people with asthma to reduce medication.

PLAIN LANGUAGE SUMMARY

Alexander technique for chronic asthma

During an asthma attack, the airways narrow, causing breathing problems, wheezing and coughing. Asthma can be caused by allergies, pollens, stress or air pollution and can be fatal. The Alexander Technique is a form of therapy involving a series of movements designed

to correct posture and bring the body into natural alignment and aid relaxation. The Alexander technique has been used by people with asthma, to try and improve breathing. The review of trials found there was not enough evidence to show the effects of the Alexander Technique in reducing the need to use medication for asthma. More research is needed.

BACKGROUND

Description of the condition

Asthma is well-known to be a widespread health problem (data on its prevalence vary between three and six per cent for adults and between eight and twelve per cent in children). While drug treatment can control the symptoms of asthma in most patients, alternative interventions which are effective, low-risk and have long-term benefits would constitute significant advances in asthma management. Reports of respiratory improvements made by those undergoing training in the Alexander technique require evaluation in the context of a systematic review.

Description of the intervention

The technique known as the 'Alexander technique' (AT) was originally developed by an Australian, FM Alexander, in the early years of this century. AT has been defined as "lessons in proprioceptive musculoskeletal education (without exercises)" but can be more simply described as a type of taught therapy involving a series of movements designed to correct posture and bring the body into natural alignment with the object of helping it to function efficiently.

How the intervention might work

The chief principle underlying AT can be expressed as: "use affects functioning." By this reasoning, it can also be said that mis-use results in dysfunction. AT sets out to "re-educate" the body to a state of liberated capacity for movement and uninhibited, efficient respiration. Because results of AT training include, in many cases, the decrease of stress and its documented constricting effects on thoracic function, it is argued those who suffer from illnesses which have emotional or stress-related components also stand to gain particular benefits from AT (Barlow 1973; Drake 1993).

While AT is a taught discipline and requires practice, it does not involve physical exercise as the term is generally understood. Leading practitioners of AT such as the late Dr Wilfred Barlow have maintained that this is particularly important to remember in the case of sufferers from breathing disorders who emphatically do not require, in his words, "breathing exercises" but instead, "breathing education" (Barlow 1973).

OBJECTIVES

The objective of the review was to investigate the efficacy of the Alexander technique in the treatment of chronic asthma.

METHODS

Criteria for considering studies for this review

Types of studies

Clinical trials of randomised or possibly randomised design were deemed to be eligible for inclusion, regardless of language. Two reviewers assessed eligibility independently.

Types of participants

Participants may be chronic asthmatics of any age.

Types of interventions

All interventions in which the Alexander technique was employed were considered; a distinction to be made in the case of short courses of instruction in AT (i.e., those lasting 10 sessions or less) and longer courses.

Types of outcome measures

Outcomes included: peak flow, forced expiratory flow in one second (FEV1), reduction in use of medication (both beta2-agonists and inhaled steroids), quality of life measures and days off work and/or school.

Search methods for identification of studies

Trials were identified using the Cochrane Airways Group Specialised Register of trials, which is derived from systematic searches of bibliographic databases including the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE and CINAHL, and handsearching of respiratory journals and meeting abstracts (please see the Airways Group Module for further details). All records in the Specialised Register coded as 'asthma' were searched using the following terms:

Alexander* or propriocep*

In addition, we checked the Cochrane Complementary Medicine Field trial register and the reference lists of related articles and reviews.

Updated searches have been run on the Specialised Register up to June 2012.

Data collection and analysis

Selection of studies

Two authors assessed titles and abstracts of citations retrieved from literatures

Data extraction and management

We did not identify trials of sufficient quality. Should such trials become available, we will update the review to include them and data will be extracted by two independent reviewers following the Airways Group procedure.

One of the review authors will be masked as to authors' names and affiliation, names of journals, date of publication, sources of financial support for the study and the acknowledgements.

Assessment of risk of bias in included studies

We plan to assess the risk of bias for included studies in terms of allocation, blinding, follow-up and completeness of outcome reporting, as recommended in the Cochrane Handbook.

Measures of treatment effect

Comparisons to be made include the following:

(1) Comparison: AT with medication versus medication only (outcomes as above)

(a) Outcome 1: PEFR = peak expiratory flow rate (weighted mean differences)
(i) 1 to 2 weeks

(ii) 3 to 6 weeks
(iii) 7 weeks to 6 months

(b) Outcome 2: FEV1 = forced expiratory volume in 1 second (weighted mean differences)
(i) 1 to 2 weeks
(ii) 3 to 6 weeks
(iii) 7 weeks to 6 months

(c) Outcome 3: drug use (inhaled steroids) (weighted mean differences)
(i) 1 to 2 weeks
(ii) 2 to 6 weeks
(iii) 7 weeks to 6 months

(d) Outcome 4: drug use (beta2-agonists) (weighted mean differences)
(i) 1 to 2 weeks
(ii) 2 to 6 weeks
(iii) 7 weeks to 6 months

(e) Outcome 5: Quality of life using standardised instruments (standardised mean difference)
(i) 1 to 2 weeks
(ii) 2 to 6 weeks
(iii) 7 weeks to 6 months

(f) Outcome 6: Days off work (weighted mean difference)
(i) 1 to 2 weeks
(ii) 2 to 6 weeks
(iii) 7 weeks to 6 months

(g) Outcome 6: Days off school (weighted mean difference)
(i) 1 to 2 weeks
(ii) 2 to 6 weeks
(iii) 7 weeks to 6 months

(2) Comparison: AT (short course, i.e. less than 10 sessions) vs. AT (long course)
(a) 1 to 2 weeks
(b) 2 to 6 weeks
(c) 7 weeks to 6 months

Data synthesis

Data will be entered into RevMan software package for analysis.

RESULTS

Description of studies

One trial identified through CENTRAL (Austin 1992) was excluded because it included groups of volunteers who had not been diagnosed as having asthma.

Risk of bias in included studies

We did not identify any suitable trials for inclusion.

Effects of interventions

In the absence of any suitable controlled trials in this area, we were unable to perform a meta-analysis. An update search carried out in August 2010 did not yield any further studies.

DISCUSSION

The Alexander technique is well-known amongst performing artists (musicians, singers and actors in particular) throughout most of the developed world. Many such performers practise AT regularly, reportedly in order to enhance voice projection and stamina. Linked to these reported benefits are many anecdotes of improvement amongst performers and non-performers with asthma who find that their symptoms and dependence on medication decreases as they become more proficient in AT (Barlow 1973). Clinical literature examining the effects of the Alexander technique on respiratory function, however, is scant.

Austin 1992 reported benefit in a group of ten healthy subjects who received 20 private AT lessons at weekly intervals, as against a matched control group who received no treatment and showed no significant changes in respiratory function.
There was a significant increase in:

1. the highest forced expiratory flow measured with a peak flow meter (PEF) (9%, $p < 0.05$)
2. maximum voluntary ventilation (MVV) (6%, $p < 0.05$)
3. maximal inspiratory pressure (MIP) (12%, $p < 0.04$)
4. maximal expiratory mouth pressure (MEP) (9%, $p < 0.01$)

Calls for empirical studies of AT have been made by those with an interest in voice disorders following anecdotal reports of its beneficial effects (D'Antoni 1995) and these too are suggestive of possible benefits to those who suffer from asthma. Calls for RCTs in the area of pulmonary/respiratory function and other areas have yet to be heard although progress is being made in other areas, e.g. a planned trial in Parkinsons disease (Ballard 2000).

AUTHORS' CONCLUSIONS

Implications for practice

The currently available evidence is insufficient to assess the potential for Alexander technique in the treatment of asthma.

Implications for research

Further research on Alexander technique seems justified by both the claims of the practitioners and the popularity of alternative therapies in general, particularly for asthma. Trials should be designed so that standardisation amongst practitioners is quantifiable, perhaps with the assistance of those with responsibility for examination and qualification of AT practitioners (ATI 1999). Input should also be sought from clinicians whose knowledge reflects current standards of clinical research on asthma. Follow-up is also desirable as it would be important to know whether effects of training, if any are demonstrated, tend to be short-term (i.e. present during the course of instruction alone) or persist following treatment. Measures of cost-effectiveness and quality of life (in the event that the training does enable a reduction in use of medication) should also be planned and evaluated.

ACKNOWLEDGEMENTS

Many thanks are owed to Steve Milan, Anna Bara and Chris Cates (Cochrane Airways Group) for their patience and hard work. Thanks also to Kirsty Olsen who copy edited this review.

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References to studies excluded from this review

Austin 1992 *{published data only}*

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D'Antoni 1995

D'Antoni ML, Harvey PL, Fried MP. Alternative medicine: does it play a role in the management of voice disorders?. *Journal of Voice* 1995;**9**(3):308-11. [MEDLINE: 96050127; ISSN 0892-1997]

Drake 1993

Drake J. Thorsons introductory guide to the Alexander Technique. London: Thorsons/Harper Collins, 1993.

CHARACTERISTICS OF STUDIES

Characteristics of excluded studies *[ordered by study ID]*

Study	Reason for exclusion
Austin 1992	Trial involved 20 healthy volunteers put into two groups - Alexander technique and 'no treatment. Individuals had not been diagnosed as asthmatic and were NOT randomised to either group.

WHAT'S NEW

Date	Event	Description
5 October 2016	Amended	Removal of the word 'physical' from the phrase 'physical therapy'

HISTORY

Protocol first published: Issue 1, 1999
Review first published: Issue 2, 2000

Date	Event	Description
22 June 2012	New citation required but conclusions have not changed	New literature search run.
22 June 2012	New search has been performed	Literature search run, no new studies found. There have been no new studies published on this topic in the past ten years and therefore we have moved this topic to a

Date	Event	Description
		longer search cycle. We plan to update the literature search in Feb 2017. If you are aware of the publication of any potentially eligible trials in the interim period, please submit as a comment from The Cochrane Library.
9 August 2010	New search has been performed	Literature search run. No new studies found.
6 August 2009	Amended	Methods changed in accordance with the 2008 Cochrane Handbook
26 May 2008	Amended	Converted to new review format
29 January 2003	Amended	Minor update
2 December 1999	New citation required and conclusions have changed	Substantive amendment

CONTRIBUTIONS OF AUTHORS

Jane Dennis wrote the text; Anna Bara and Jane Dennis looked at potential trials in the area.

DECLARATIONS OF INTEREST

None known.

SOURCES OF SUPPORT

Internal sources

- NHS Research and Development, UK.

External sources

- No sources of support supplied

INDEX TERMS

Medical Subject Headings (MeSH)

*Physical Therapy Modalities; *Posture; Asthma [*therapy]; Biomechanical Phenomena; Breathing Exercises; Chronic Disease

MeSH check words

Humans