Respiratory disease

Breathing self-management programme improves quality of life in asthma

A breathing retraining exercise programme, incorporating a training DVD and accompanying booklet, achieved similar improvements in quality of life scores as conventional face to face training in patients with asthma, in a UK study.

A total of 655 asthma patients, aged 16-70 years, were recruited from 34 general practices. There were broad entry criteria with smokers included and no requirement for demonstrated airflow reversibility, although those with COPD and an FEV_1 < 60% predicted were excluded. All patients had had asthma diagnosed by a physician, had received inhaler therapy in the past year and had Asthma Quality of Life Questionnaire (AQLQ) scores of 5.5 or less.

Subjects were randomised to three groups: 262 to standard therapy, 132 to face to face physiotherapist breathing retraining sessions and 261 to the DVD and booklet. (This intervention was based on a breathing retraining programme taught by physiotherapists and shown to be effective in poorly controlled asthma.) As far as possible, treatment group was blinded to the researchers and patients were asked not to discuss their treatment.

The main outcome was the AQLQ score at 12 months. Secondary outcomes included patient-reported and physiological measures of asthma control, patient acceptability and healthcare costs.

AQLQ scores were significantly higher in the DVD plus booklet group compared with the usual care group; mean 5.40 vs 5.12, adjusted mean difference 0.28 (95% CI: 0.11-0.44) and in the face to face treatment group mean 5.33 compared with the usual care group, adjusted mean difference 0.24 (95% CI: 0.04-0.44). There was no significant difference in AQLQ scores between the DVD plus booklet group and the face to face breathing retraining group.

There were no significant differences in secondary outcomes between the groups apart from a small but significant improvement in the HADS score for depression in the DVD plus booklet group. The latter group also demonstrated a non-significant tendency to fewer asthma attacks compared with the usual care group. Adverse effects in the treatment arms were not significant and the three deaths which occurred (one in the DVD plus booklet group and two in the usual care group) were thought not to be study related.

The BTS/SIGN asthma guideline indicates that there is good evidence for using breathing exercise programmes but from a practice perspective these are often difficult to access and costly in therapist time.

This was the largest trial of breathing retraining in asthma to date to use a pragmatic randomised controlled trial design. It shows that advice and training using a DVD and booklet offers comparable clinical benefits to face to face sessions by physiotherapists.

This self-management approach offers a practical prospect of improving care for our asthma patients more conveniently and inexpensively.

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Bruton A, Lee A, Yardley L et al. Physiotherapy breathing retraining for asthma: a randomised controlled trial. *Lancet Respir Med* 2018;6:19-28

Cardiovascular disease

Triple antiplatelet therapy no better than standard regimens after ischaemic stroke

Intensive antiplatelet therapy with three agents did not reduce the incidence and severity of recurrent stroke or transient ischaemic attack (TIA) but did significantly increase the risk of major bleeding in the TARDIS study.

This study was an international, prospective, randomised, open-label, blinded-endpoint superiority trial in patients with ischaemic stroke or TIA. Participants were recruited from 106 hospitals in four countries (the UK, Denmark, Georgia and New Zealand) between 7 April 2009 and 18 March 2016. The vast majority (95%) were recruited from the UK. Mean age was 69.0 years and 1,945 (63%) were male.

A total of 3,096 patients were randomised, within 48 hours of onset of the event, to intensive antiplatelet therapy with three agents or guideline-based therapy. The 1,556 patients in the former group received loading doses and then 30 days of intensive antiplatelet therapy (combined aspirin 75 mg, clopidogrel 75 mg, and dipyridamole 200 mg twice daily). The 1,540 patients randomised to the other group received guideline-based therapy (comprising either clopidogrel alone or combined aspirin and dipyridamole) for 30 days following loading doses.

The primary outcome was the combined incidence and severity of any recurrent stroke (ischaemic or haemorrhagic) or TIA within 90 days. The main safety outcome was haemorrhage.

The incidence and severity of