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Colorectal cancer and CHF

Reviewing the evidence for complementary medicine

This is the third of a series of articles looking at the available evidence for complementary medicine. Physical activity is important in attenuating harmful effects of aging and the onset of chronic disease. Benefits of physical activity in preventing or delaying cardiovascular disease and managing obesity and arthritis have mainstream acceptance. However, evidence is emerging of the benefits of physical activity in other conditions such as cancer.

The second study discussed this month suggests hawthorn extract may have an adjuvant role in the management of chronic heart failure (CHF).

Physical activity and colorectal cancer

Physical activity may be associated with reduced risk of colorectal cancer. A 2005 meta-analysis¹ reviewed the available evidence seeking a link between exercise and large bowel cancer. The methodology included a Cochrane type review of the evidence. Data extracted included:

- type of study
- type of physical activity measured, and
- numerical results.

The risk ratios (RR) of the studies were pooled according to: type of study, exercise, and cancer, and gender. Pooling was undertaken using fixed effect meta-analysis. A random effect meta-analysis was used where substantial heterogeneity existed.

Data from 19 cohort studies showed a statistically significant reduction in risk of colon cancer in physically active men (RR: 0.79, 95% CI: 0.72–0.87 for occupational activities; RR: 0.78, 95% CI: 0.68–0.91 for recreational activities). In women, only recreational activities are protective against colon cancer (RR: 0.71, 95% CI: 0.57–0.88). Case control studies showed significantly reduced risk of colon cancer in both sexes irrespective of the type of physical activity. No protection against rectal cancer was seen in either sex.

The authors concluded there is considerable evidence that physical activity is associated with reduced risk of colon cancer in both men and women.

Hawthorn extract and chronic heart failure

A meta-analysis of randomised trials² assessed the evidence of hawthorn extract in the treatment of CHF. The literature was searched using Medline, EMBASE, the Cochrane Library, CINAHL, CISCOP, and AMED. Experts on and manufacturers of commercial preparations containing hawthorn extract were asked to contribute published and unpublished studies. Two reviewers independently performed the screening of studies, selection, validation, data extraction, and the assessment of methodological quality. To be included, studies were required to state that they were randomised, double blind, and placebo controlled, and used hawthorn extract monopreparations.

Thirteen trials met all inclusion criteria. In most of the studies, hawthorn was used as an adjunct to conventional treatment. Eight trials including 632 patients with CHF provided data suitable for meta-analysis. For the physiologic outcome of maximal workload, treatment with hawthorn extract was more beneficial than placebo (weighted mean difference, seven watt; 95% CI: 3–11 watt; $p < 0.01$; $n = 310$). The pressure heart rate product also showed a beneficial decrease (weighted mean difference, –20; 95% CI: –32 to –8; $n = 264$) with hawthorn treatment. Some symptoms (eg. dyspnoea, fatigue) improved significantly with hawthorn treatment compared to placebo. Reported adverse events were infrequent, mild, and transient and included nausea, dizziness, and cardiac and gastrointestinal complaints.

These results suggest there is significant benefit from hawthorn extract as an adjunctive treatment for CHF.

Conflict of interest: none.

References

1. Samad A, Taylor R, Marshall T, Chapman M. A meta-analysis of the association of physical activity with reduced risk of colorectal cancer. *Colorectal Dis* 2005;7:204–13.
2. Pittler M, Schmidt K, Ernst E. Hawthorn extract for treating chronic heart failure: meta-analysis of randomised trials. *Am J Med* 2003;114:665–74.