

TREATING DEPRESSION IN TEENS

Adding cognitive behaviour therapy (CBT) to a treatment regime of selective serotonin reuptake inhibitors (SSRIs) and routine clinical care does not appear to contribute to an improved outcome for depressed teenagers.¹ A British randomised controlled trial assigned 208 adolescents suffering from moderate to severe major depression to one of two groups. Half received an SSRI and routine care alone, while the remaining participants also underwent weekly CBT for 12 weeks, then fortnightly for 12 weeks. Researchers used several rating scales of depression to assess the outcome at 6, 12 and 28 weeks. A similar proportion of teenagers across the groups showed significant improvement in their depressive symptoms over time, with almost 60% showing improvement by 28 weeks. There was no difference in the incidence of side effects between the treatment arms. An accompanying editorial comments that the evidence suggests monotherapy with an SSRI is reasonable as a treatment for teenagers with moderate to severe depression, but that therapy needs to be of adequate dosage, for a sufficient length of time, and under proper supervision.²

¹ *BMJ* 2007; 335: 142
² *BMJ* 2007; 335: 106-107

EAT LESS, LIVE LONGER

A gene acting in the central nervous system neurons of the nematode worm *Caenorhabditis elegans* may mediate the effect of dietary restriction on longevity. In a US study, worms were cultivated with different concentrations of a bacterial food source until a maximum life span was reached with a prescribed level of dietary restriction. The transcription factor gene *skn-1* was found to be activated by a restricted diet. This gene signals peripheral tissues to increase metabolic activity and is critical in controlling the oxidative stress response. Organisms with a mutation of *skn-1* were unable to maintain longevity with dietary restriction. The researchers propose that, as in the mammalian hypothalamus, levels of key intracellular metabolites act as signals of energy availability to control food intake and metabolism. They suggest a hormonal signal is released on dietary restriction which promotes metabolic activity, increases respiration, and prolongs life span.

Nature 2007; 447: 545-549



DUAL THERAPY FOR HYPERTENSION

An antihypertensive medication, aliskiren, newly approved in the US, appears to have an additive effect in reducing blood pressure when used in combination with an angiotensin converting enzyme (ACE) inhibitor. Aliskiren is an angiotensin receptor blocker (ARB). Both ACE inhibitors and ARBs work by inhibiting the production or action of angiotensin II, resulting in increased plasma renin activity. In a randomised, double-blind placebo-controlled trial, 1797 patients with essential hypertension were assigned to four groups. The treatment groups received valsartan (an ACE inhibitor) alone, aliskiren alone, or a combination of both drugs for 8 weeks. Both drugs were administered at the maximum therapeutic dose. The placebo group received no active therapy. The combination of the ACE inhibitor and ARB resulted in a lowering of mean systolic blood pressure from baseline by 12.2 mmHg. This result was significantly greater than that achieved by either monotherapy or placebo. The combination of drugs showed a similar rate of adverse effects and biochemical abnormalities to the other treatment regimes — a result inconsistent with another large trial. The researchers comment that this may have been due to the inclusion of patients with impaired cardiovascular and renal function in the earlier study.

Lancet 2007; 370: 221-229

DIET AND BREAST CANCER

A diet very high in vegetables, fruit and fibre, and low in fat, does not appear to reduce recurrences or mortality in women who have survived early stage breast cancer, according to a US study. The randomised controlled trial followed over 3000 women who had been previously treated for early breast cancer. The intervention group received regular telephone counselling and monthly newsletters promoting intake of fruit and vegetables and low fat meals. This group also attended cooking classes covering aspects of healthy eating. The control group were provided with printed materials outlining a diet high in fruit and vegetables and low in fat, and attended an average of one cooking class as opposed to four in the intervention group. The dietary pattern was shown to change significantly in the intervention group compared with the control group. The change in diet appeared to be maintained for the 6 years of the study. Researchers found there was no evidence for an intervention effect of dietary change on breast cancer recurrence or mortality in this group of women with breast cancer. The authors comment that the findings do not rule out a longer-term effect on survival of dietary alteration.

JAMA 2007; 298: 289-298

EVEN CAD IS IN THE GENES

Recent research analysing data from two large genome-wide association studies of coronary artery disease (CAD) and myocardial infarction has found several new genetic loci which individually and together have a significant effect on the risk of CAD. Of particular interest were loci on chromosome 9 (9p21.3), which were able to be identified by using recently developed high-density genotyping arrays. The authors comment on the usefulness of the genome-wide approach, whereby previously unsuspected loci which increase susceptibility to complex diseases can now be identified.

N Engl J Med 2007; Jul 18 [Epub ahead of print]

Dr Tanya Grassi, MJA