

Meditation and light order of the day for psoriasis

Patients with psoriasis and their dermatologists have long suspected that psoriasis is exacerbated by stress. Researchers at the University of Massachusetts now report that "mindfulness meditation-based stress reduction", when coupled with phototherapy (ultraviolet B light, UVB) or photochemotherapy (psoralen plus ultraviolet A light, PUVA) can reduce time to skin clearing in some patients (*Psychosom Med* 1998; 60: 625-32).

37 patients with moderate-to-severe psoriasis (15% or more body involvement) were randomised to four treatments: UVB alone; UVB plus meditation; PUVA alone; or

Mixing complementary with mainstream medicine

The results of a US telephone survey released on Sept 18 indicate that complementary therapies, including meditation, are becoming an integral part of US health care. In the survey, funded by the NIH Office of Complementary Medicine, 69% of people surveyed had used some form of complementary or alternative medicine in the past year. □

PUVA plus meditation. During the light treatments, patients in the meditation groups listened to audiotapes on breathing, body sensation awareness, and visualisation of UV light slowing of keratinocyte proliferation. Patients were assessed for skin clearing every 4 weeks in terms of: first response to therapy; "turning point" when plaques begin to decrease in area; halfway point; and clearing point. 13 patients did not complete the study and two were censored because of therapy changes.

In the final analysis, patients listening to the tapes reached the halfway point ($p=0.013$) and the clearing point ($p=0.033$) faster than those in the non-meditating cohorts. The rate of attainment of these two clinical endpoints was about 3.8 times faster in the meditation groups than in the non-meditation groups.

The researchers are careful to note that "attribution of the results of this study to elements of the stress reduction intervention should be considered preliminary and tentative". But they conclude that their results may provide impetus for further study.

David H Frankel

Cannabinoid analgesia explained

Marijuana, it is claimed, relieves pain, but how? In a new study, the analgesic effect of cannabinoids has been found to work via a part of the brain stem also used by opioids. But, marijuana's activity is pharmacologically dissociable from that of opioids (*Nature* 1998; 395: 381-83).

Researchers in Howard Fields' laboratory at the University of California, San Francisco (CA, USA) gave rats a cannabinoid and then tested their pain threshold with the tail-flick test—ie, how fast the rats moved their tails away from a heat lamp. Inactivation of the rostral ventromedial medulla (RVM) by microinjection of muscimol, which mimics an inhibitory neurotransmitter, prevented the analgesia caused by the cannabinoid.

The activities of single neurons in the RVM were correlated with the changes in pain thresholds caused by intravenous administration of opioid and cannabinoid agonists and antagonists. For example, the cannabinoid antagonist SR141716A

alone induced hyperalgesia, indicating that endogenous cannabinoids modulate pain thresholds.

"The RVM projects directly to the spinal cord, and is the final common pathway for a lot of pain-modulating brain regions that feed into it. When you administer cannabinoids, and record from neurons in the RVM, you see a difference in firing correlated with the longer latency in the tail-flick test. Then, when we injected the morphine antagonist naloxone after the cannabinoid, it did nothing further to the tail-flick test, and nothing further to the firing of cells in the RVM", says first author Ian Meng.

It is unclear when and why the endogenous cannabinoid system is normally activated, but cannabinoids alone are not effective for severe pain so they are "not going to replace morphine", says Meng. However, he adds, "cannabinoids increase appetite, and so may help alleviate the nausea caused by opioids."

Paul M Rowe

Herbal medicine under scrutiny

Last week, five reports were added to the body of evidence that indicates a need for tighter regulation of the herbal-medicine industry (*N Engl J Med* 1998; 339: 785-91; 806-11; 847; 847-48; and 827-30).

Robert DiPoala (Robert Wood Johnson Medical School, New Brunswick, NJ, USA) and colleagues showed that PC-SPES, a combination of eight herbs used as a non-oestrogenic treatment for prostate cancer, has potent oestrogenic activity. The use of this unregulated mixture could, DiPoala said, "produce clinically significant adverse effects".

Nancy Slifman's group (Office of Special Nutritionals, Washington, DC, USA) reported that a woman developed digitalis toxicity after taking a contaminated herbal remedy; Richard Ko (California Department of Health Services, Sacramento, CA, USA) said that 83 of 260 imported Asian medicines contained undeclared pharmaceuticals or were contaminated with heavy metals; Frank LoVecchio (Maricopa Medical Center Phoenix, AZ, USA) discussed a man who had central-nervous-system depression after taking a dietary supplement sold as a growth-hormone stimulator; and Yitzhak Beigel (Rabin Medical Center, Petach Tikva, Israel) et al described a patient who developed lead poisoning after taking a herbal diabetes preparation.



To be taken only with great care

Mohamed Farah (WHO Drug Monitoring Centre, Uppsala, Sweden) regards herbal preparations as a lottery. "Classification of the original plants used is often confused... Even if the plant is identified correctly, the final composition of an extract varies according to which part of the plant is used, where it was grown, what time of year it is." Registration of herbal remedies may be tricky but "people have a right to know what they are taking".

Kathryn Senior