Reflexology and pain

A study co-authored by FHT fellow Carol Samuel, PhD, published in the May issue of Complementary Therapies in Clinical Practice, explored the effects of reflexology on pain threshold and tolerance using an ice-pain experiment and sham TENS control.

Fifteen healthy subjects (11 female and four male, with a mean age of 37.7 years) who had no previous experience of reflexology or TENS took part in the study.

A cross-over design was used, with each subject receiving a 45-minute reflexology treatment and 45-minute sham TENS intervention, one week apart. The reflexology intervention was a standard treatment, to ensure all reflex points were covered, and the TENS machine (control intervention) had no electrical output, other than a digital timer.

After receiving the reflexology and sham TENS, subjects were required to immerse their non-dominant hand in ice-slurry, with time measurements taken for pain threshold (the time taken for subjects to experience the first sensation of pain) and pain tolerance (the time when subjects could no longer tolerate further pain), as well as heart rate.

The results showed that after reflexology, subjects were able to hold their hand in the ice-slurry for longer before they felt pain, and could also tolerate pain for a longer period of time, compared with after the sham TENS.

Effects of aromatherapy on heart patients

Patients with coronary heart disease who are admitted to an intensive care unit (ICU) often experience high levels of anxiety and stress and poor quality of sleep, for a variety of reasons—ranging from the physical effects of a heart examination, to the emotional and psychological effects of staying in an unfamiliar, high-tech, treatment-focused environment that may be frequently changing, noisy and constantly lit. Patients may also feel isolated from their families and potentially witness sudden emergency situations.

It has been indicated that anxiety, stress and insomnia significantly affect the treatment of coronary heart disease, and therefore interventions to improve these in such ICU patients would be extremely beneficial.

An open-access Korean study recently published1 investigated the effects of aromatherapy on the anxiety, blood pressure (BP) and sleep quality of patients with ischaemic heart diseases who underwent stent insertion during coronary angiography and were admitted to a cardiovascular ICU.

The study involved 36 patients who were evenly assigned to an aromatherapy group or control group, receiving standard nursing care. The aromatherapy intervention used an oil blend containing lavender (reported to suppress heart stimulation and lower BP), Roman chamomile (to relieve anxiety and stress), and neroli (to calm and ease insomnia). The blend was applied to aroma stones, which the patients inhaled using 10 deep breaths, before and after their angiography procedure. The stones were also placed under the patients’ pillows until the following morning. Anxiety, BP and sleep quality measures were taken on the day of admission, before and after the angiography procedure, and the following morning.

The results indicated that anxiety levels were significantly lower in the aromatherapy group compared with the control group. The aromatherapy group also experienced no significant changes to sleep quality, whereas the control group had significantly worse sleep (the authors felt that as sleep quality was likely to decrease in patients in the ICU, this indicated that aromatherapy was effective in maintaining sleep despite the stressful circumstances).

While BP of both groups did not show a significant difference by time or in a group-by-time interaction, compared with on the day of admission, BP appeared to be lower in the aromatherapy group after the aromatherapy treatment and before the angiography procedure.

The authors concluded that while more research is necessary before it is introduced into practice as a nursing intervention, ‘aromatherapy reduced anxiety, increased sleep, and stabilised the BP of patients undergoing cardiac stent insertion. Among alternative therapies that have recently been introduced, aromatherapy is easy to apply, fast-acting and can be used in independent nursing interventions’.

The above study is available online (open access) and can be viewed in full at www.ncbi.nlm.nih.gov/pmc/articles/PMC3588400
