

Mindfulness Meditation improves quality of life

An eight-week programme of mindfulness meditation improves quality of life and reduces fear of activity in heart attack patients, according to a research presented at ESC Acute Cardiovascular Care 2021, an online scientific congress of the European Society of Cardiology (ESC).

“Mindfulness refers to the mental state achieved by focusing awareness on the present moment, including thoughts, feelings, and physical sensations,” said study author Dr. Canan Karadas of Hacettepe University, Ankara, Turkey. “It has drawn increasing attention for treating chronic conditions such as high blood pressure. Our study examined its effect on fatigue, kinesiophobia and quality of life after an acute myocardial infarction.”

Patients assigned to the mindfulness intervention attended an individual session which included a 15-minute description of the technique. This was followed by 15 minutes of supervised practice: patients were asked to sit comfortably on a chair with their backs straight

and eyes closed. They were then instructed to breathe deeply, inhaling through the nose and exhaling through the mouth using the diaphragm and to focus on their breathing and the present moment. Participants received a recording of the instructions and were asked to repeat the 15-minute session every day at home in a quiet room. Daily reminders (text messages or phone calls) were used to motivate the patients to practice the meditation and to evaluate their compliance with the study protocol.

Fatigue, kinesiophobia, and quality of life were assessed at baseline and at weeks 4, 8 and 12 using the Piper Fatigue Scale, Tampa Scale for Kinesiophobia Heart questionnaire and MacNew Heart Disease Health-Related Quality of Life questionnaire which examines patients’ feelings about how their heart condition affects daily function overall and in three areas (physically, emo-



tionally, and socially).

At baseline, there were no differences in the three variables between the intervention and control groups. By week four, patients in the mindfulness group had less fear of movement compared to the control group, a benefit that was sustained at weeks 8 and 12. Patients in the mindfulness group had better quality of life overall and in all three areas than those in the control group at week eight, while at week twelve they continued to report better emotional function. Measurements of fatigue did not vary between the two groups at any time point.

Green Tea Supplements can modulate facial development of children with Down Syndrome

A new study led by Belgian and Spanish researchers published in Scientific Reports adds evidence about the potential benefits of green tea extracts in Down syndrome.

The researchers observed that the intake of green tea extracts can reduce facial dysmorphism in children with Down syndrome when taken during the first three years of life. Additional experimental research in mice confirmed their positive effects at low doses. However, they also found that high doses of

the extract can disrupt facial and bone development.

Researchers analyzed the effect of green tea supplements on facial development in Down syndrome. In the experimental part of the study, the Epigallocatechin gallate (EGCG) supplements were tested in mice at different dosages. In a second part of the research, they did an observational study on children with and without Down syndrome. This work, led by the Centre for Genomic Regulation (CRG), European Molecular Biology Laboratory (EMBL) and University



of Barcelona in Spain and KU Leuven in Belgium, is an international effort involving researchers from University of Central Florida, La Salle University Ramon Llull and IMIM - Hospital del Mar Medical Research Institute.

"All participants were photographed from various angles to create a 3D model of their faces," explained Neus Martínez-Abadías, professor at the University of Barcelona and co-lead author of the study. "We used 21 facial landmarks, and the distances between them, to compare the faces of the participants. In the youngest group between 0 and 3 years, we observed that 57% of the linear distances were significantly different when you compare the faces of children with Down syndrome that never received the treatment to those of

children that do not have Down syndrome. For babies and toddlers who did receive EGCG treatment, this difference was much smaller, only 25 percent. After green tea supplementation, the facial dysmorphology decreases and the children with or without Down syndrome look more alike."

"We didn't identify a similar effect in the adolescent group. Even when treated with green tea extracts, children with Down syndrome still show a difference of more than 50 percent compared to the control group. These findings suggest that the green tea supplements only affect facial development when they are administered in the early stages of life when the face and skull are rapidly growing."

Chinese Medicine kills cancer cells

Compound kushen injection (CKI) is approved for use in China to treat various cancer tumors, usually as an adjunct to western chemotherapy.

The study, published in the journal *Oncotarget*, is one of the first to characterize the molecular action rather than breaking it down to its constituent parts.

The Centre was established by the Zhendong Pharmaceutical Company, with the aim of understanding how Traditional Chinese Medicine works, and the long-term aim of possible integration into western medicine. The researchers



used high-throughput next generation sequencing technologies to identify genes and biological pathways targeted by CKI when applied to breast cancer cells grown in the laboratory.

"We showed that the patterns of gene expression triggered by CKI affect the same pathways as western

chemotherapy but by acting on different genes in the same pathways," says Professor Adelson. "These genes regulate the cell cycle of division and death, and it seems that CKI alters the way the cell cycle is regulated to push cancer cells down the cell death pathway, therefore killing the cells," said study leader, Professor David Adelson, Director of the Zhendong Australia.

Professor Adelson said that this technique could be used to analyze the molecular mechanisms of other Traditional Chinese Medicines, potentially opening their way for use

Acupressure can improve Lower Back Pain

"Acupressure is similar to acupuncture, but instead of needles, pressure is applied with a finger, thumb or device to specific points on the body," says Susan Murphy, an associate professor of physical medicine and rehabilitation at Michigan Medicine and lead author of the study.

"Relaxing acupressure is thought to be effective in reducing insomnia, while stimulating acupressure is thought to be effective in fatigue reduction," Murphy says.

Participants in the acupressure groups were trained to administer acupressure on certain points of the body and spent between 27 and 30 minutes daily, over the course of six weeks, performing the technique. Compared to the usual care group, they found that people who performed stimulating acupressure experienced pain and fatigue improvement and those that performed relaxing acupressure felt their pain had improved



after six weeks.

Murphy notes that chronic pain is difficult to manage and people with such condition tend to have additional symptoms such as fatigue, sleep disturbance and depression. "Most treatments offered are medica-

tions, which have side effects, and in some cases, may increase the risk of abuse and addiction." She says this study highlights the benefits of a non-pharmacological treatment option that patients could perform easily on their own and see positive results.

Hypnotherapy for Anxiety

Even though hypnotherapy isn't as widely known as psychotherapy as a medication for treating anxiety, researchers and scientists have been studying the effects it can have on mental health conditions such as anxiety, post-traumatic stress disorder (PTSD) and depression for several years.

Researchers scanned the brains of people while they were undergoing guided hypnosis sessions. They found that a hypnotized brain experiences changes in the brain that gives a person focused attention, greater physical and emotional control and lesser self-consciousness.



During a hypnotherapy session, the therapist can give a patient what's known as a "posthypnotic suggestion" while the patient is in a state of trance. In this dreamlike state, the mind becomes more open to suggestion. This allows the therapist to suggest to a patient, how easily confident he will be the next time he experiences any anxious situation.

Because of the relaxed state, it can be easier to avoid escalating any anxiety symptoms one may feel, such as: a feeling of impending doom, shortness of breath, increased heart rate, muscle tension, irritability and nervous stomach.

Hypnotherapy should be used as a complementary treatment to cognitive behavioral therapy. However, if a doctor only uses hypnosis to treat anxiety, it could have effects similar to those of meditation. A hypnotic induction would help put patient into a relaxed state, just like meditation. This can then be used to address anxieties and phobias.

Homeopathy and Diabetes

The main objective of homeopathy, while treating a diabetic person is to treat the overall health of a person. This is because diabetes is not only restricted to the bloodstream but it also affects different parts of the body and organs as well. Common symptoms of a person suffering from the problem of diabetes include hunger, fatigue, excessive thirst, dry mouth, skin sores and blurry vision.

Homeopathy medicines are made from minerals, plants, or animals. Delhi based Homeopath, Dr. HituKhera, clarified that Homeopathy does not cure diabetes, it can only help to control it. "Diabetes is a metabolic and lifestyle disorder. Until and unless dietary intervention and exercise are included in one's daily routine, no medicines can control this condition," Dr. Khera explained.

Syzygiumjambolanum or black plum can be used in homeopathy to treat the problem of excessive thirst, weakness, skin ulcers, and excessive urination. *Uranium nitricum* is used to treat the problem of excessive urination and nausea. *Conium* (hemlock), herbaceous flowering plant is used to treat numbness in the



feet and hands whereas *Calendula* (marigold) is an aromatic plant and its flower is used to make medicines.

As homeopathy medicines are mostly made from natural substances, the side effects are very rare. There is only a small risk of having an allergic reaction by using homeopathic medicines. Sometimes people stop their allopathy medicines to see if their homeopathy works or not, which can develop serious complications.