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Research Paper

Yoga- The Ultimate Prevention of Cardiovascular Disease…

Medical Science

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ABSTRACT

Yoga is definitely the remedy for all the modern day ailments especially the cardiovascular diseases that are increasing so fast now a days. In our centre at nashik we teach yoga to a lot of heart patients and have found promising results in them so far. We just aim to enlighten the world with the power of yoga and help cure all the pain and sufferings.

Yoga is an ancient Indian mind body technique, which is becoming increasingly popular throughout the world because of its several health benefits. Yoga is an integrated system of self culture which aims at harmonious development of body, mind and covers all aspects of human life that lead to physical well being, mental harmony culminating into positive thinking, happiness and peace. Yoga envisages health in totality on the principle of healthy mind in a healthy body. Yoga is not merely a few postures (asanas) but a holistic life style, which promotes physical, mental, emotional and spiritual well being.1 Although there are many types of yoga, Hatha Yoga is most commonly practiced. Core components of Hatha Yoga include stretching exercises and physical postures (Asanas), breath control (Pranayama) and concentration techniques (Meditation). Yoga is believed to help detoxify the body, mitigate chronic fatigue, enhance endurance, improve organ and immune functions.2 Beneficial effects of yoga have been reported in multiple chronic conditions including depression, stress, anxiety, menopausal symptoms, arthritis, low back pain, cancer, allergies, asthma, acid peptic disease, irritable bowel syndrome, migraine, metabolic syndrome, diabetes mellitus, cardiovascular diseases (CVD) etc.3–5 Yoga appears to be especially beneficial for primary and secondary prevention of CVD.

1. Yoga for primary prevention of CVD

Modern life style stresses have been shown to be a major contributory factor to many diseases including CVD. A US based study has demonstrated that mindfulness based stress reduction (MBSR) such as yoga, reduced the average number of visits to primary care physicians in inner city areas suggesting that yoga may contribute to general health and particularly in cardiac health in populations that are subject to significant mental stress.6 Several studies suggest that yoga may significantly improve risk factors for CVD like body weight, lipid profile, blood pressure, smoking, psychosocial stress and type 2 diabetes mellitus.7–10 Though the results of yoga on hypertension are mixed, a recent meta analysis studied the effect of transcendental medication (™) on blood pressure in nine well conducted randomized controlled trials.11 TM compared to control was associated with reduction of systolic BP by 4.7 mm Hg (CI 1.9–7.4) and diastolic BP of 3.2 mm Hg (CI 1.3–5.6). Although the reduction in BP by yoga and meditation is modest, this could significantly decrease the risk of CVD because it has been estimated that reducing systolic BP by 3 mm Hg in general population has potential to reduce stroke mortality by 8% and coronary heart disease (CHD) by 5%.12,13 The possible mechanism of reduction of blood pressure is considered to be reduced sympathetic activity and restoration of baro receptor sensitivity by yoga.14 In a recently published scientific statement or alternative methods to lower blood pressure (BP) and reduce CVD risk, the American Heart Association (AHA) reported that Transcendental Meditation (TM) techniques may be considered in clinical practices to lower BP. The AHA also reported research that TM may reduce heart attacks, stroke and deaths in CVD patients.15

2. Yoga for secondary prevention

In a recent randomized controlled trial of TM and health education in Blacks, it has been reported that there was a 48% risk reduction in primary end point which was composite of all cause mortality, myocardial infarction and stroke over a period of 5.4 years.16 Two randomized trials have also shown that early atherosclerosis (as assessed by carotid intimal medial thickness) is significantly reduced by regular practice of yoga/meditation.17,18 Three controlled studies utilizing coronary angiography in advanced CHD have demonstrated that yoga/meditation with use of low fat vegetarian diet caused retardation of progression and even regression of coronary obstructions as compared to usual care control group.19–21 In addition, the need for interventional procedures was significantly reduced. LDLc, triglycerides, body weight, angina and exercise induced ischemia were also significantly reduced in the yoga group. Yoga may be a useful tool for cardiac rehabilitation also because yoga leads to improved physical fitness, stress reduction and general well being.22 Yoga also contributes to decreased physiological arousal, better sleep and appetite.23,24

A few small trials have demonstrated the benefits of yoga in cardiac rehabilitation.25,26

This issue of Indian Heart Journal has an article on Yoga based cardiac rehabilitation after coronary bypass surgery – one year results on LVEF, lipid profile, psychological stress – a randomized study) which clearly suggests the benefits of yoga in improving the LVEF, lipids, hyperglycemia and decrease in stress, anxiety and depression as compared to the control group.27 Long term studies are needed to determine whether these positive effects are translated into decreased mortality.

3. Limitations of yoga studies

Although yoga/meditation has been demonstrated to be useful in primary and secondary prevention of CVD, there are several limitations of the reported studies. Most of the studies have small sample size and have unconsistencies in baseline, many have absence of adequate controls and have non uniform methodologies. Large multicentric randomized trials are needed to confirm these findings. However as yoga/meditation is a cost effective simple technique without any side effects and hence could be recommended for primary and secondary prevention of CVD and that it can play a primary or complimentary role in this regard.28

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