

# Is mind-body relaxation by yoga effective to combat lifestyle stress?

Sir,

Modern life is full of stress, life-style stress. Physiologically, stress may be defined as a perturbation of the body's homeostasis. Communities are exposed to varieties of stresses either acute (short-duration) or chronic (long-duration) in their day-to-day work. This stress is correlated with the physiological alterations includes different diseases, such as diabetes, cardiovascular diseases, asthma, cirrhosis, depression, and obesity.<sup>[1]</sup>

One of the major factors of life-style diseases is "diet." The fact finding data revealed that during the second half of the 20<sup>th</sup> century, dietary pattern has changed substantially where consumption of meat, fats, and oils, beverages had been increased extensively. Simultaneously, large reduction in physical activity caused obesity. The factors associated with life-style stress are duration of the stress, the nature of stressors, and life-style (diet, smoking, alcohol consumption, and the nature of occupation). These life-style diseases are in close association with the physiology of stress development by neuroendocrine stimulation of hypothalamo-pituitary adrenal (HPA) axis. Numerous physiological events occur during the chronic stress conditions, resulting in increased secretion of catecholamines (epinephrine and norepinephrine), increased blood pressure and cardiac output. It was also shown that a brief yoga-based life-style intervention was efficacious in reducing oxidative stress and risk of chronic.<sup>[2]</sup>

Conversely, integrated system of health-care includes appropriate nutrition, adaptation of yoga and physical exercise, and healthy life-style. Hence, stress management strategies involved alteration and modifications in perceptions of organized assertive skills.<sup>[3-5]</sup> Since the 1970s, meditation and other stress-reduction techniques including "yoga," which was developed in India as a way of living and a part of Indian culture have been studied as possible treatments for depression and anxiety, which has become increasingly popular in recent decades. Recent studies show that yoga brings about a balance in autonomous nervous system and regulates blood pressure by stabilizing sympathetic and parasympathetic nervous system.<sup>[1]</sup> It mainly acts via down regulating the HPA axis that trigger as a response to physical or psychological stressors, leading to a cascade of physiological, behavioral, and psychological

effects, primarily as a result of the release of cortisol and catecholamines. This response leads to the mobilization of energy needed to combat the stressor through the classic "fight or flight" syndrome. In this respect, yoga functions like other self-soothing techniques, such as meditation, relaxation and exercise. By reducing perceived stress and anxiety, yoga appears to modulate stress response systems. This, in turn decreases physiological arousal, e.g., reducing the heart rate, lowering blood pressure, and easing respiration. The plasma melatonin has been reported to increase after chronic yogic practice. Furthermore, the maximum night time melatonin levels during the yoga practice showed a significant correlation with well-being score. It has also been reported that subjects trained in yoga can achieve a state of deep psychosomatic relaxation associated with a highly significant decrease in oxygen consumption while practicing *Savitri pranayama* and *shavasana*.<sup>[6-11]</sup>

However, persuasive research in this scientific field is still unmapped. Hence, this virgin territory of research may explore a new dimension of scientific research, which is a reliable avenue to have holistic health.

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