Annals of Pharmacology and Pharmaceutics

Short Communication
Published: 06 Feb, 2018

Stress is not that Bad

*Chaiti Ganguly**

Department of Pharmacology, IILM Academy of Higher Learning, India

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Stress is a very familiar unpleasant feeling in today's life. From a small kid to an octogenarian, feel stressed in their day to day life. Now the question arises whether stress is a 21st century syndrome or our ancient ancestors also felt stressed to the same extent. If we go by history, in times past people used to protect themselves from predators and used to stalk their own prey. In every step there was a chance to face danger (could be wild animals, natural disaster, unknown disease etc). But those stresses were acute, intense but short lived. The sources of stress arose and passed relatively quickly .There were two options, either to fight or flee. But in recent times people face chronic ongoing stress, which is detrimental to health.

The age old body's biological stress response is same to overcome today's modern stress. Any event which poses threat or challenge to a person's well being, body's defense kicks into gear in a rapid automatic process. A flood of chemicals shut down some important but not urgent functions of the body (digestion, growth, emotional bonding) and concentrate on other functions (energy bursts enhanced focus, quick reaction times etc).Thus the body itself handles to overcome the crisis [1]

During stress response we all experience our heart start to beat fast. At this time heart tries to pump more blood through out body and supply more oxygenated blood in our brain which helps quick thinking and energy storage for coping up the threat. So a quick fast heart beat will help us to challenge the threat. Stress response causes the body to secrete different stress hormones (adrenaline, cortisol, nor- epinephrine and others) into the blood stream from where they reach to the target zone. When adrenaline releases due to stress, our alertness, awareness and cognitive functions are increased. Adrenaline along with nor-epinephrine is largely responsible for immediate action. The primary role of nor epinephrine is arousal like adrenaline But it works like a back up system. If adrenal gland is nonfunctional, nor-epinephrine will take up the job in place of adrenaline. Releases of cortisol in optimum amount is life saving. Aschbachers' study measured the stress induced damage within cell. She had observed that small amount of stress reduces the damage of DNA, RNA and moreover it increases antioxidant mechanism in its defense against free radicals [2]. Kaufer and Kirby in their animal study observed that significant but brief stressful event caused brain stem cells to proliferate in new a nerve cell which later improves the mental performance of rats after two weeks. Further it was observed that fibroblast growth factor 2 (EGF 2) was released from astrocytes during acute stress and play a major role in regulating neurons [3]. Oxytocin, another stress hormone which is a neuropeptide, fine tunes our brain with social instinct. It primes human being to do things that enhance empathy and strengthen relationship [4]. Apart from functioning on brain this hormone also protects cardiovascular system from stress. and helps blood vessels to stay relaxed [5] .Another interesting point is that heart has receptors of this hormone and oxytocin helps most heart cells to regenerate and heal from stress induced damage [6]. If we take a holistic view we can find that stress gives us access to heart and a compassionate heart finds joy in connecting with other people and our pounding heart gives us strength and energy.

For getting beneficial effects from stress three factors should be taken into consideration, duration, perception and resilience. Most of the researchers had concluded through their study that short term acute stress is not that bad rather has so many beneficial effects. At the same time chronic stress undermine both our body and mind. Usually short term stress (called good stress or eustress) is acute and temporary and it triggers an adaptive response which is mounted and shut down immediately when the stressor factor is over. But chronic stress continues for a prolonged period and invites various physical and mental problems [7]. Perception is another important factor for distressing. Hans Selye, who first popularized the term stress in the 1930s often say 'it's not what happens to you that matters but how you take it' [8]. His observation was in agreement with what Mc Gonogial, a neuroscientist , had stated in her TED talk .She had quoted a study that seems to

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Correspondence:
Chaiti Ganguly, Department of Pharmacology, IILM Academy of Higher Learning, India,
E-mail: chaitig@yahoo.com

Received Date: *05 Jan 2018*
Accepted Date: *28 Jan 2018*
Published Date: *06 Feb 2018*

Citation:
Ganguly C. Stress is not that Bad. Ann Pharmacol Pharm. 2018; 3(1): 1142.

say that a person's perception on stress is important than their levels of stress [9].

It may be conclude that short term acute stress is beneficial to our body , so one should not be worried to feel stressed up to meet a dead line or managing life work balance. If stress is a frequent and prolonged phenomenon, people should go for some stress busters. If we hypothesize a stress spectrum model, in one side we have a short term acute stressor and other side there is long term chronic stressor. In between these two there is a zone of low stress or may be called zone of resting equilibrium to maintain good health. Our purpose would be to minimize the chronic stress and to belong in this resting zone with the help of several methods ,viz : socialization, exercise, meditation, yoga and so on.

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