

Research Paper

CHEMISTRY

Role Of Allopathy in Tackling Stress

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ABSTRACT

Stress is the sum total of all non-specific biological phenomena elicited by adverse external influences(Dorland's Medical Dictionary). It leads to negative health consequences. When stress is not handled with proper care it leads to serious health problems. Neurotransmitters play important role in the chemistry of stress. Studies reveal that during stress certain powerful hormones are secreted in brain only for short-term duty in emergency situations. Their cumulative effect damages and

kills brain cells. In order to cope with Stress certain allopathic medicines are available which have proved to be very much useful.

KEYWORDS : stress, harmones, allopathy, anxiety, depression

Two powerful body systems cope with stress. The nervous system controls the rapid body changes, while the endocrine system regulates the longer-term patterns of stress response by releasing hormones into the blood. The adrenal activates the sympathetic nervous system, reducing the normalizing effects of body function. This increases the metabolic rate, heart rate, circulation and blood pressure. In addition, effectiveness of the digestive system is diminished and disturbances in sleep patterns become common.

Only those neurotransmitters synthesized in the brain can affect the brain because serotonin formed in the body cannot cross the bloodbrain barrier.

A few studies also suggest that light therepy is an effective treatment for nonseasonal depression (Golden, Gaynes and Ekstrom, 2005)

According to some evidence, tryptophan, which increases brain serotonin in humans as in experimental animals(Young and Gauthier 1981) is an effective antidepressant in mild-to-moderate depression(Young 1986)Further, in healthy people with high trait irritability, it increases agreeableness, decreases quarrelsomeness and improves mood(aan het Rot and colleagues 2006)

Controlling stress by Allopathy

Allopathy, includes traditional anti-anxiety drugs such as benzodiazepines, and newer options like antidepressants and beta-blockers.

These medications can be very effective, but they shouldn't be thought of as a cure. Anxiety medication can provide temporary relief, but it doesn't treat the underlying cause of the anxiety disorder. Once one stop taking the drug, the anxiety symptoms often return in full force.

Benzodiazepines are the most common class of anti-anxiety drugs. They include: Alprazolam , Clonazepam , Diazepam , Lorazepam , Oxazepam , Chlordiazepoxide Benzodiazepines are fast acting-typically bringing relief within thirty minutes to an hour. Because they work quickly, benzodiazepines are very effective when taken during a panic attack or another overwhelming anxiety episode. But despite their potent anti-anxiety effects, they have their drawbacks.

Anti-anxiety drugs reduce brain activity. While this temporarily relieves anxiety, it can also lead to unwanted side effects. Long-term benzodiazepine users are often depressed, and higher doses are believed to increase the risk of both depressive symptoms and suicidal thoughts and feelings. The medication relieves the anxiety, but it also blocks feelings of pleasure or pain.

Many medications originally approved for the treatment of depression have been found to relieve symptoms of anxiety. These include certain selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), monoamine oxidase inhibitors (MAOIs), and the newer atypical antidepressants.

Antidepressants are often preferred over the traditional anti-anxiety drugs because the risk for dependency and abuse is smaller. However, antidepressants take up to 4 to 6 weeks to begin relieving anxiety

symptoms, so they can't be taken "as needed." For example, antidepressants

wouldn't help at all if you waited until you were having a panic attack to take them. Their use is limited to chronic anxiety problems that require ongoing treatment

The antidepressants most widely prescribed for anxiety are SSRIs. These work by regulating serotonin levels in the brain to elevate mood and have been used to treat panic disorder, obsessive-compulsive disorder (OCD), and generalized anxiety disorder (GAD).

Although physical dependence is not as quick to develop with antidepressants, withdrawal can still be an issue. If discontinued too quickly, antidepressant withdrawal can trigger symptoms such as extreme depression and fatigue, irritability, anxiety, flu-like symptoms, and insomnia

Beta blockers are a type of medication used to treat high blood pressure and heart problems. However, beta blockers are also prescribed off-label for anxiety. Beta blockers work by blocking the effects of norepinephrine(noradrenaline), a stress hormone involved in the fightor-flight response. This helps control the physical symptoms of anxiety such as rapid heart rate, a trembling voice, sweating, dizziness, and shaky hands.

Beyond the common side effects, medication for anxiety comes with additional risks. While the tranquilizing anti-anxiety drugs are relatively safe when taken only occasionally and in small doses, they can lead to severe problems when combined with other substances or taken over long periods of time. Furthermore, some people will have adverse reactions to any amount of anti-anxiety medication. They are not safe for everyone, even when used responsibly.

CONCLUSIONS:

Stress is unavoidable .As a result of this, certain biological reactions are triggered in out body. The body warns about this stress by displaying certain symptoms such as increased blood pressure, sweating, cold hands, palpitations and trembling of hands etc.these are in a way warnings or signals to the body to avoid stressful environment(stressor).Good thing is that our bodies are designed to react to our environment in an effort to preserve homeostasis. Arming ourselves with an understanding of the mechanisms, agonists, and antagonists of the stress response, however, positions us to minimize stress and its impact on our minds and bodies. Stress levels rest largely on our own behavior and decisions and that we can optimize our bodies' responses to stress based on how we live our daily lives.

The effect of stressor can be reduced/avoided by strengthening will power or by changing life style or one may opt for taking medicines.

There are many drugs available for the anxiety in Allopathic treatment but Anxiety medications aren't a cure. Medication may treat some symptoms of anxiety, but can't change the underlying issues and situations in your life that are making a person anxious.

There are many treatment alternatives to medication, including cog-

nitive behavioural therapy, which is widely accepted to be more effective for anxiety than drugs. To overcome anxiety for

good, one may need to change life style, it includes regular exercise, adequate sleep, and a healthy diet. Other effective treatments for anxiety include talk therapy and meditation.

The advantage of non-drug treatments for anxiety is that they produce lasting changes and long-term relief. If your anxiety is so severe that it interferes with therapy, medication may be useful in the shortterm to get your symptoms under control. Once your anxiety is at a manageable level, other forms of behaviour and talk therapy can be successfully pursued.



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