

**ASHWAGANDHA; THE DRUG OF CHOICE IN LIFESTYLE DISORDERS****Dr. Minal J. Vaidya\*<sup>1</sup>, Dr. Rekha Parmar<sup>2</sup> and Dr. Satej Banne<sup>3</sup>**<sup>1</sup>2<sup>nd</sup> Year P.G. Scholar, <sup>2</sup>MD (Ayu.) HOD & Professor, <sup>3</sup>MD (Ayu.) Asst. Professor.Department of *Dravyaguna*; Parul Institute of Ayurveda; Parul University, Limda, Vadodara; Gujarat – 391760 (India).**\*Corresponding Author: Dr. Minal J. Vaidya**2<sup>nd</sup> Year P.G. Scholar Department of *Dravyaguna*; Parul Institute of Ayurveda; Parul University, Limda, Vadodara; Gujarat – 391760 (India).

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**ABSTRACT**

*Ayurveda* is all about balance. A healthy mind leads to a healthy body; what you think affects how you physically feel; what you eat and drink effects on your mind. *Ayurveda* is a Sanskrit word which means "the scripture for longevity". It adapts a unique holistic approach to the entire science of life, health and cure. It is increasingly being realized that many of today's diseases are due to "oxidative stress" that results from an imbalance between formation and neutralization of free radicals. However, chronic psychological and physical stress can result in elevated cortisol levels. Some of the symptoms of elevated cortisol levels include anxiety, depression, hypertension, stress-related fatigue, insulin resistance and obesity. *Ayurveda* envisages human being as a complex entity consisting of the physical body, sensory and motor organs, mind and spirit. *Ashwagandha* is characterized as a best among "*rasayana*," described by *Charaka*. It is an adaptogenic herb; popular in *Ayurvedic* medicine and has been used for more than 2,500 years. It's used to promote physical and mental health, to defend body against disease and damaging environmental factors, and to slow down the ageing process. If you are anxious, *Ashwagandha* will calm you; if you are constantly fatigued, *Ashwagandha* will boost your energy and stamina. It's almost as if the herb has a deep intelligence that somehow knows exactly what your body needs for balance and gives you just that. It helps lower cortisol levels in chronically stressed individuals. It's valued for its thyroid modulating, neuroprotective, anti-anxiety, antidepressant and anti-inflammatory properties. Thus in turn prevents ageing and provides longevity which can be understood as *Vayasthapana*.

**KEYWORDS:** Adaptogenic, *Ashwagandha*, *Rasayana*, Cortisol, *Vayasthapana*.**INTRODUCTION**

A particular lifestyle of person is a cumulative product of his/her physical capacity co-ordinated with psychological functioning, displayed in the form of habits, behaviour, dietary and living pattern based on his own training sought from childhood, and mimics he gained from his immediate companions including parents, siblings, peers, etc. Thus, it involves a pure psychological and innate control over the physical and sensory activities. When this initiation, control, and co-ordination are disturbed, it leads to the derangement of lifestyle and results in any lifestyle disorder. *Ayurveda* narrated this phenomenon as '*Prajnaparadha*' (intellectual blasphemy), which is one of the three basic causes of any disease.<sup>[1]</sup> Habit of suppression of any natural urge in improper lifestyle is a result of *Prajnaparadha* and enlisted as a cause of nearly 50% of the lifestyle diseases. The incidence of lifestyle diseases like hypertension, diabetes mellitus, dyslipidaemia, anxiety, stress and overweight/obesity associated with cardiovascular diseases is high on the rise. With rapid economic development and increasing westernization of lifestyle in the past few decades,

prevalence of these diseases has reached alarming proportions among Indians in the recent years.<sup>[2]</sup>

As *Ayurveda* is recognized as foremost life science and describes ways to prevent and manage lifestyle disorders, the world is being attracted towards its potential. It provides better solution in the forms of proper dietary management, lifestyle advises, *Panchakarma* like detoxification and bio-purification procedures, medicaments, *Dincharya* (daily-regimen), *Ritucharya* (seasonal-regimen) & *Rasayana* (rejuvenation) therapies. The holistic approach of *Ayurveda*, treating the patient as a whole, meaning intervention targeted toward complete physical, psychological, and spiritual well-being makes this science a wonderful option in lifestyle disorders. Moreover, the application of organ-specific *Rasayana* herbs also provides enough scope not only for prevention of disease, but also for the promotion of health and cure of disease too.

*Ashwagandha* is known as the "strength of the stallion" because it traditionally has been used to strengthen the immune system after illness. It's also been referred to as "Indian ginseng" because of its ability to enhance

stamina and work as a natural stress reliever. It is used for arthritis, anxiety, bipolar disorder, attention deficit hyperactivity disorder (ADHD), balance, trouble sleeping (insomnia), tumours, tuberculosis, asthma, leukoderma, bronchitis, backache, fibromyalgia, menstrual problems, hiccups, Parkinson's disease, chronic liver disease etc. It is also used to reduce side effects of medications used to treat cancer and schizophrenia. Also used to reduce levels of fat and sugar in the blood.

**AIMS AND OBJECTIVES:** To collect the information about efficacy of *Ashwagandha* in lifestyle disorders.

**MATERIAL AND METHOD:** *Charaka Samhita* and other internet sources.

**Causes:** The commonest causes of lifestyle disorders are improper *Ahara & Vihara*. *Ahara* like eating unhealthy foods, over eating, over dependence on processed foods, energy drinks, artificial sweeteners and fast foods. *Vihara* like sedentary living, smoking, drinking alcohol, stress, poor sleeping habits which are all attributed mainly to the so called modern living habits and urbanization added with the altered eating habits makes the situation worse. Another important problem of the modern world is poor exposure to sun light and fresh air. Diet and lifestyle are major factors thought to influence susceptibility to lifestyle diseases. Along with that there are certain other factors such as heredity, age and gender which cannot be avoided or controlled. But the other factors that can be avoided or controlled.<sup>[3]</sup>

### Prevention of Lifestyle Disorder Through Ayurvedic Rasayana

The challenges to control the present epidemic of lifestyle disorder is more difficult than the battle against infectious disease as they cannot be controlled merely by discovering powerful drugs, unless healthy lifestyle and behavioural modification is adopted by people.

Long life, heightened memory and intellect, freedom from disease, youthfulness, excellence of complexion, lustre, and of voice, optimum strength of the physical body and the senses, fulfilment of whatever is spoken, reverence of all people all this does one obtain by the proper use of *rasayanas*. They replenish the vital fluids of the body.<sup>[4]</sup> In addition to food and diet, *Ayurveda* propounds a separate concept of medicinal dietary supplements in the context of *Rasayana* (rejuvenative measures). It can be used as nutritional supplement as well as medicine depending upon its various types. Most *Rasayanas* produce their nourishing and rejuvenating effect by promoting the *Agni Bala*, acting as direct nutrients and by way of *Sroto-prasadan* (purification of bodychannels), resulting in an improved nutritional status which further leads to an improved quality of *Dhatus* or body tissues. Many *Rasayanas* could be tissue and organ specific such as *Medhya Rasayana*, *Hridya Rasayana*, *Twachya Rasayana*, and so on.<sup>[5]</sup> Various

studies on *Rasayana* suggest their action;<sup>[6]</sup> Immunomodulator Adaptogenic Antioxidant Antistress etc.

*Ashwagandha* is the best of the *Rasayana* described by *Charaka*. It (*Withania somnifera* L.Dunal.), is also known as winter cherry. The roots of the plant are categorized as *Rasayanas* and described to promote health and longevity by augmenting defences against disease, arresting the ageing process, revitalizing the body in debilitated conditions and thus creating a sense of well-being. The extract has analgesic, mildly sedative, anti-inflammatory and anabolic activities.<sup>[7]</sup>

A first-class life-extending herb, one of *Ashwagandha*'s benefits is that it has also been shown in research studies at universities in Japan to regenerate nerve cells and dendrite growth throughout the brain and body, making it a frontline treatment in neurodegenerative diseases such as Alzheimer's and Parkinson's and an all-around bio-enhancing substance for anyone looking for a significant health boost. *Ashwagandha* also improves communication between nerve cells and stimulates the body to heal nervous system damage.<sup>[8]</sup>

### DISCUSSION

The *Ayurvedic* texts describe a set of rejuvenative measures to impart biological sustenance to the bodily tissues. These remedies are called *Rasayana*, which are claimed to act as micronutrients. Those specific to brain tissue are called *Medhya Rasayana*. Such *Rasayanas* retard brain aging and help in regeneration of neural tissues besides producing antistress, adaptogenic and memory enhancing effect. The popular *Medhya Rasayanas* are *Ashwagandha*, *Brahmi*, *Mandukaparni* and *Sankhapuspi*. Of the most cherished herbal remedies, *Ashwagandha* is the highest or most prominent herb. Acting as an adaptogen, rejuvenating the nervous system, and boosting the body's resilience to stress.<sup>[9]</sup> *Ashwagandha* extracts have been shown to contain many beneficial compounds, including withanolides, alkaloids, choline, fatty acids, amino acids, and sugars. Extracts of its tuberous roots are most commonly used in herbal remedies. The top and most well-researched benefits include:

1. Improves thyroid functions
2. Relieves adrenal fatigue
3. Combats stress and anxiety
4. Improves depression
5. Balances blood sugar levels
6. Helps to fight cancer
7. Reduces brain cell degeneration and improve memory
8. Boosts immune function
9. Increases stamina and endurance
10. Helps to increase muscles strength
11. Helps to improve sexual function and fertility.<sup>[10]</sup>

*Ashwagandha* helps protect central nervous system. And is a promising alternative treatment for a variety of

degenerative brain diseases including Alzheimer's, Parkinson's and Huntington's disease through its antioxidant and inflammation-reducing mechanisms.

Withaferin A and withanolide D are the two main withanolides in ashwagandha that are used to improve cognitive function. Withanolides are naturally occurring steroids that present in nightshade family plants. When they were injected into rodents to test their cognitive-improving abilities, researchers found that they helped to promote cell outgrowth, reverse behavioural deficits and plaque buildup, reduce amyloid beta burden, which is crucially involved in the development of Alzheimer's disease.

As an antioxidant, *Ashwagandha* seeks out and destroys free radicals. Free radicals have been implicated in many age-related diseases. There's even some emerging evidence that *Ashwagandha* offers anti-cancer benefits.

*Ashwagandha* helps reduce anxiety, depression, the stress hormone cortisol, blood sugar levels, improves lipid profiles.<sup>[11]</sup> High levels of cortisol are extremely unhealthy for the body and in today's modern world, most of the society has dangerously high levels of it. It makes us stressed, weak, sick, depressed, and aged more quickly.

In one experiment, researchers compared the cortisol levels in the blood of the people taking *Ashwagandha* at the beginning of the study with their cortisol levels 60 days later. The blood levels of cortisol dropped significantly for the people taking it. The cortisol levels decreased by 27.9% in only 60 days. That is an enormous drop in cortisol levels and it explains a lot. Lowering cortisol not only decreases stress, improves mood, and decreases anxiety and depression, but it also is healthy on the heart and for longevity.<sup>[12]</sup>

*Ashwagandha* helps regenerate *axons* and *dendrites* of brain nerve cells. And helps reconstruct *synapses*, the junctions where nerve cells communicate with other cells.<sup>[13]</sup> Boosting *memory* and restoring *neural networks* affected by neurodegenerative disease. *Ashwagandha* extract inhibits *acetylcholinesterase*. The enzyme responsible for breaking down the key neurotransmitter *acetylcholine*.<sup>[14]</sup>

#### How does *Ashwagandha* Work in the Brain?

1. *Ashwagandha* enhances *GABA* receptors and serotonin in the brain. It appears to work on neuron receptors, enabling *GABA* to connect easier. This inhibits the signals present under a stress response in the brain. Anxiety goes down. A study was conducted at The Canadian College of Naturopathic Medicine with 75 volunteers with moderate to severe anxiety. *Ashwagandha* produced a *significant decrease in anxiety levels* over the control group.<sup>[15]</sup>

2. *Ashwagandha* improves cognitive and psychomotor performance in a healthy brain. Researchers at Nizam's

Institute of Medical Sciences in Hyderabad, India, worked with 20 healthy male volunteers. In this double-blind, placebo-controlled trial participants were given 250 mg capsules of standardized *Ashwagandha* extract for 14 days. Significant improvements in reaction times were reported at the end of the trial. The study suggests that *Ashwagandha* extract *improves cognitive and psychomotor (physical reaction) performance* even when you're in the best of health.<sup>[16]</sup>

3. *Ashwagandha* *undoes damage to the brain caused by chronic stress* and helps keep it healthy. *Ashwagandha* improves cognitive function. *Glycowithanolides*, one of the many compounds found in this herb, reduces cortisol. And overall energy levels are enhanced through optimizing mitochondrial function. It also has *GABA-mimicking effects* in the brain. Comparable to the effects of prescription *benzodiazepines* like lorazepam (Ativan).<sup>[17]</sup>

4. *Ashwagandha* is a part of the adaptogen family, a compound known for its ability to help the body regulate stress and adapt its functions. Adaptogens, work to support the adrenal glands and help counteract effects of stress in the body while correcting imbalances. Recently research has shown *Ashwagandha* to have even more benefits than previously thought including anti-inflammatory, antioxidant, and rejuvenating qualities. A study done in the Journal of Indian Psychology showed that a group of subjects who received a high concentration of *Ashwagandha* showed a significant reduction in their stress assessment scores. Serum cortisol levels were also reduced relative to a placebo group and overall perception of stress with a general conclusion that any adverse effects are mild, and supplementation is considered safe.<sup>[18]</sup>

*Ashwagandha* actually helps with a lot more than that, but it is surprising how one herb can have so many positive effects. There are several theories and there are many active ingredients within *Ashwagandha*. In layman's terms they get called the same thing "withanolides" but actually there is a lot going on and even a lot of difference between the types of withanolides. So even though *Ashwagandha* is just one plant, there are several different molecules going to work on the body simultaneously.

#### CONCLUSION

From the history of treatment and preventive measures given to the persons suffering from life style diseases, *Ayurveda* has proven its role and importance in this area. The other systems do not have any other answers than the supply of nutritional food and physical activities in this respect. Proper understanding and application of this concept in practice of *Ayurveda* would only lead to perfect and precise treatment. Hence treatment of any disease would not be complete without using *Rasayana*. *Ashwagandha* is used since a long time as a *Rasayana*. Various experimental & clinical trials the ancient claims

of its therapeutic as an adoptogene, aphrodisiac, anxiety, cognitive, neurological disorders, inflammation, liver tonic, anti-inflammatory, antibacterial, anti-ageing, antioxidant activity along with its thyrotrophic effects and effect on Parkinson's disease that make a potent & effective herbs. It's unique in that it causes the body to "normalize". It's been known for centuries to have wonderful healing properties.

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