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RESEARCH ARTICLE

AN OBSERVATIONAL STUDY TO ASSESS THE STATUS OF OJUS IN STRESSED INDIVIDUALS.

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Abstract

The concept of ojas is very unique to Ayurveda. Even though ojas is considered as a quintessential part of the existence and well being of an individual, the concept is still ambiguous to the society. Ojas is said to be the essence of the dhatus, and it is responsible for the maintenance of body. Depletion of Ojas has many ill effects on the mental and physical aspect of an individual and may even lead to death. Rapid changes in the modernization of culture, fast growing technologies and changing lifestyle have enabled man to cross unimaginable boundaries. At the same time, it has brought harmful effects on human body. The growing pace has paved way to new breed of disorders, which has a dreadful impact on the society. It has been the main reason behind dreadful health condition. Recent surveys show that there is 57% rise in work related stress in India. In Ayurvedic classics while describing the causes of vitiation of ojas psychological conditions such as anger, tension, sorrow, exhaustion following exertion is mentioned. Even in Ojakshay lakshana acharyas have described the symptoms like fear, debility, unstable mind, cheerlessness, excessive worry etc. Such symptoms are even found in individuals who are suffering from stress. Till date there has been no study done to assess the status of ojas in stressed individuals.

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Introduction:-

Ayurveda is the traditional Indian system of medicine with sound philosophical and experimental doctrines. It emphasizes on physical, psychological and spiritual health, moreover it is the science dealing with the concept of complete health. Acharyas have clearly stated that a healthy person is the one in whom humors (doshas) and metabolic state (agni) are in equilibrium, the functional activities of the tissues and excretory system are in balance, and the soul, senses and mind feel well¹. As per the Ayurvedic concepts human body is composed of three basic elements, vata, pitta, and kapha, three malas-mutra, purisha and sweda, the saptadhatus, rasa, rakta, mamsa, medas, asthi, majja and shukra. Ojus as per Ayurveda is the essence of all the seven dhatus², it is the prasaadpaka of all the dhatwagnis. While describing the formation of ojus Acharya Charaka quotes a simili that just as a bee collects nectar from flowers, ojus is formed as a result of the collection of snehabhaga from the prasadapaka of all the dhatus³. According to Chakrapani ojus is synthesized from the saara of dhatus and it gets transported to hridaya and from there it is circulated throughout the body i.e. ojus gets mixed with rasa⁴. The vikshepana karma of vyana vayu helps the rasarooipi ojus to reach the dasadhamani and from there it is circulated

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all over the body. Chakrapani states that hridayam is the seat of paraojus and aparaojus is present all over the body. The quantity of paraojus is ashtabindu and the aparaojus is said to be ardhanjali. Vagbhata mentioned the quantity as one prasrita⁵. Arunadatta opines that ojus is present all over the body and six drops of ojus is located in the hridayam⁶. The paraojus is considered sreshtha and it is said that if it undergoes any derangement it will result in instant death. From this it can be inferred that the term dushti of ojus means dushti of aparaojus or its depreciation from its original quantity. Causes of ojakshaya include psychological conditions such as anger, hunger, tension, grief, exhaustion, trauma etc⁷. According to Acharya Susruta abhigata, dhatukshaya, kopa, soka, dhyana, srama, kshut are causes of ojakshaya. Acharya Charaka and Vagbhata have described the symptoms of Ojakshaya as sense of fear, debility, excess worry, discomfort in sense organs, loss of complexion, unstable mind, cheerlessness, roughness and emaciation⁸. Acharya Susruta has told giddiness, wasting of muscles, delusion, delirium and death.

Nibandhakara explains that excessive use of kashayatikta, guru sheeta, rooksha, vishtambaahara and excessive indulgence in practices like vegavighata, vyayama, vyavaya, vyadhikarshana, ojus gets vitiated. Vitiating of ojus is of three types, ojo visramsas, ojo vyapatand ojakshaya.⁹

The term visramsas means displacement from seat. Symptoms of Ojo visramsas are loss of compactness of joints, weakness of the body, displacement of doshas from their locations, impairment of the functions of body and feeling of exhaustion¹⁰.

Ojo vyapat lakshanas include rigidity and heaviness of the body, swelling due to vitiated vata discoloration of skin or changes in complexion, fatigue, drowsiness and excessive sleep. Nibandhakaras have told emaciation and reduction in digestive power as symptoms. Ojakshaya lakshanas include impairment of vision, digestive power and aggregated vata lakshana and it will finally lead to marana.

Stress

In today's competitive world stress has become an inevitable part of civilization. As per biological term stress is defined as anything constituting a threat real or apparent which adversely affects an individual. Stress can be induced by several factors like changes in the environment, fear, anxiety, shock, grief, pain etc. When the body is capable of coping with a stressful stimuli, it is called as eustress¹¹. On the other hand stress becomes distress when the individual fails to cope with stress, hence many a times it is said that eustress helps in improving performance whereas distress becomes the cause of many health issues. The different types of stress are

Eustress: This type of stress is fun and exciting, also known as positive type of stress, it keeps the person energized, and helps the individual to meet the dead line.

Acute stress: A very short term stress that can be positive or negative or more distressing, it is encountered in day to day life.

Episodic acute stress: Acute stress that seems to run rampant and be a part of life.

Chronic stress: Stress that seems to never end and is inescapable.

Body responds to stress by fight or flight response, during this reaction, certain hormones like adrenaline and cortisol are released. Hormones can travel anywhere in the body, so the effects of cortisol are virtually felt everywhere in the body¹². Cortisol makes more energy available to the brain and muscles in order to accelerate speed and response time. This speeds the heart rate, slows down digestion, shunts blood flow to major muscle groups and changes various other autonomic nervous functions, giving the body a burst of energy and strength. When the perceived threat is gone systems are designed to return to normal via the relaxation responses but in case of chronic stress the relaxation process does not occur often and this inability can cause damage to the body. The first symptoms are relatively mild like chronic headaches, increased susceptibility to cold, more exposure to chronic stress leads to serious health issues like diabetes, hypertension, heart disease, hyperthyroidism, obesity, hair loss, weight loss, sexual dysfunction, ulcers, tooth and gum disease etc. The consequences of excess stress is that many systems in the body are affected, the digestive system, metabolism (including imbalances in body weight), musculoskeletal system, immune system, the nervous system, cardiovascular system and reproductive system. Excess stress also has an impact on mental and emotional state. It also has an adverse effect on the teeth, hair, nails and bone health. Eventually stress can take its toll on a person's health.

Background and rationale

The prevalence of stress in India is 89% as compared to the global average of 86%. Stress affects the quality of life, affecting the proper working of almost all the systems in the body leading to the derangement of the internal homeostasis. It can affect the mental and physical status of individuals. As per Ayurveda ojus is the essence of all the seven dhatus and it also plays a vital role in homeostasis. This dhatu essence can be formed only when the dhatu parinama is proper and stress has an unhealthy impact on almost all the systems of the body including the digestive system. Thus far there has been no studies done to assess the status of ojus in stressed individuals, hence an attempt is made in this study.

Methodology:-

Type of study- Observational
 Study setting- Pariyaram, Kannur
 Sample size- 15
 Sampling technique- consecutive
 Inclusion criteria
 Individuals of age group between 20-50 years
 Individuals having stress

Excusion criteria

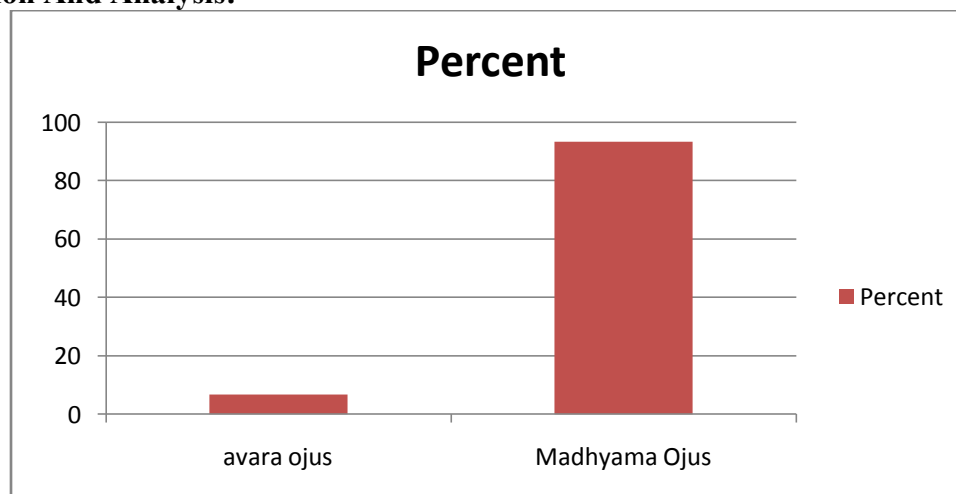
Pregnant and lactating women
 Subjects with mental illness
 Individuals consuming medications for systemic illness
 Alcoholics

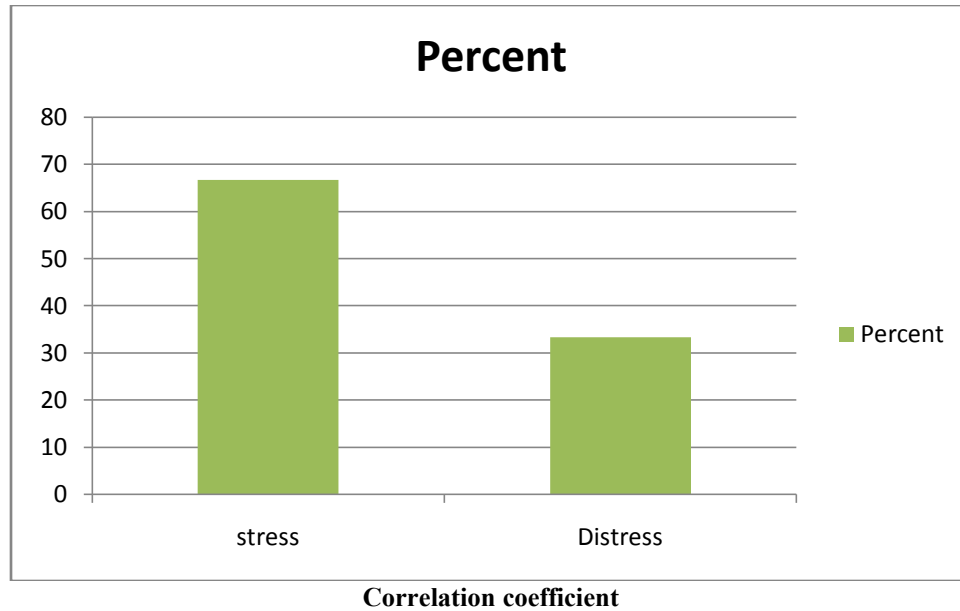
Details of material

1. Research proforma - contained questions regarding gender, age, type of work etc.
2. Ojus assessment tool- The status of Ojus was assessed by a validated questionnaire developed by dept of kriyasareera containing 37 questions. The tool for the assessment of status of ojus is analysed in an objective grading way, grading from high score to low score. Zero to thirty is considered as avara ojus, thirty one to sixty as madhyama ojus and sixty one to ninety as pravara ojus.
3. Stress assessment questionnaire- Stress assessment was done by a validated tool developed by national centre for health statistics, NHANES study.

Procedure- In this study 25 individuals were screened for stress by administering stress assessment tool. The age group considered was 20-50 yrs. Fifteen individuals were identified for stress and ojus assessment tool was administered to them. There were 7 male subjects and 8 female subjects. Two individuals belonged to 20-30 yrs group. Eight individuals belonged to 30-40 yrs group and five individuals belonged to 40-50 yrs group.

Observation And Analysis:-





Correlations:-

			OJUS	STRESS
Spearman's rho	OJUS	Correlation Coefficient	1.000	.649**
		Sig. (1-tailed)	.	.004
		N	15	15
	STRESS	Correlation Coefficient	.649**	1.000
		Sig. (1-tailed)	.004	.
		N	15	15

** . Correlation is significant at the 0.01 level (1-tailed).

It was observed that Subjects with avaraojus were 6.7% and subjects with madhyama ojus were 93.3%.Subjects in stress zone were66.7% and subjects in distress zone were 33.3%.It was also observed that many of the symptoms in ojakshaya and stress were common.The following are the symptoms

1. Fatigue(gatrasaada)
2. Heavyness(gurugatrata)
3. Skin discoloration(varnabheda)
4. Loss of strength(glani)
5. Dryness(rukshata)
6. Sareerakriyassannirodha(physical efficacy impaired)
7. Mamsakshay(muscle weakness)
8. Durmana(unhappy)
9. Mental efficiencyimpairment(manaskriyasannirodha)
10. Bhaya(Fear)
11. Abheekshanamadhyaanam(excess worry)

Result:-

The Spearman correlation coefficient value observed in this analysis is 0.649and the correlation was significant at 0.01 level ,which shows that there is a statistically significant association between ojus score and stress score and also some of the symptoms shown in stress and ojukshaya were found to be similar.

Discussion:-

Significance between ojus score and stress score was assessed using spearmans correlation coefficient and the level of significance was0.649.The connection between the mind and body is apparent when one examines the impact stress has on life.Similarly ojas has an influence on mind and body .Diet helps to develop and maintain the body. Ayurveda has given outmost importance to ahara,by explaining it under the trayopsthambhas. Every individual

experiences stress in their lifetime and the response to stress vary from individual to individual, some may resort to overeating to fill an emotional void at the same time another stressed individual eats less or quits food. As in the case of overeating individuals, they usually resort to comfort foods which are rich in fat and sugar and less in nutrition¹³. Heavy or guru ahara as per Ayurveda causes agnimandya and dosha prakop, the nourishment of dhatus is hampered and since Ojus is said to be the essence of saptadhatus, the formation of ojas is affected. In stressed individuals, who quit food or eat less there is no formation of ahara rasa, leading to further depreciation of subsequent dhatu formation, the varna, bala, sneha which are the gunas of ojus (qualities conferred by ojus on the body) are depleted by the vitiated dosha and dhatus. In consequence the individual suffers from impoverished dhatu and devitalisation, thereby affecting the status of ojus in the body. A stressed individual clearly depicts signs of rasakshaya, like roukshya, shrama, shosha, hritkampa, glani, tandra, that itself suggests the vitiation of dhatu at the root level further hampers the formation of ojus. Studies show that mental stress changes the heart rate and rhythm of heart, even in patients without evidence of heart disease¹⁴. Ojakshaya can cause fainting, emotional confusion and death¹⁵. Research suggests that mental stress particularly in patients who already have arrhythmias can eventually lead to death. In Ayurvedic classics while describing the causes of ojakshaya, psychological conditions such as anger, tension, sorrow, exhaustion, trauma, kopa, dhyana, srama and kshut are mentioned, all these causes are seen as symptoms in stress also. These causes lead to vitiation of hridayagataojus in extreme situations, leading to death, perhaps that must reason behind the lakshanamarana mentioned in ojakshaya by Acharyas. In Charaka nidana Acharyas have said sahasamvarjayet that means individual should avoid over exertion as it adversely affects the body by causing ojakshaya, thereby affecting the immunity and increasing the susceptibility of various infectious diseases¹⁶. Therefore sahasa should be avoided as far as possible and body should be well protected by taking adequate care of the three sub pillars of life. The manifestation of systemic illness as an aftermath of stress depends on its chronicity, similarly the extent, degree and intensity of vitiation of ojus depends on the etiological factors ranging from physical to psychological. The symptomatology of ojevism, vyapath and kshay may occur in various disease conditions also.

Conclusion:-

The concept of ojus is unique to Ayurveda. Ojus plays a vital role in maintenance of body, (dehasthithi), it contributes in maintaining the homeostasis. The physical and mental attributes are influenced by the status of ojus. Sahasa should be avoided as far as possible and body should be protected by taking adequate care of oneself by following the regimens (dinacharya, ratricharya) giving special importance to the trayopstambhas of life. The causes of ojakshaya like bhaya, krodha, worry, kopa, dhyana, srama, shoka etc were also seen as symptoms in stress. As per Ayurveda, prasannaatma, mana and indriya contribute to swasthya or health of an individual. Therefore it can be inferred that stress wears down the body on psychological and systemic levels, acting as a contributing factor for ojakshaya and variety of illness, therefore its influence on body should not be overlooked.

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