

**CONCEPT OF OJA VISRAMSA IN AYURVEDA WITH SPECIAL
REFERENCE TO CONNECTIVE TISSUE DISORDER****Kumari Neelam^{1*} and Neha²**

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ABSTRACT

Ayurveda is the ancient system of medicine that originated in India. Ayurveda focuses on the maintenance of body, mind and consciousness that leads to the good health. *Oja* is supreme quintessence of all seven *dhatu*s which provide strength, power, and *bala* against disease.^[1] *Oja* is related to the *tridoshas* and the *saptadhatu*s. Any fluctuation in *oja* leads to a disease state. *Ojadushti* is divided into three stages in three ways according to *Sushruta Samhita*: *ojavistransa*, *ojavyapad* and *ojakshaya*. From all, *ojavistransa* is defined as the dislocation or deviation of *oja* from its normal place, whether it may be its normal location, structure or function. The connective tissue binds, supports, and provides strength to other body tissues. Disorder of connective tissue that causes disturbance in the

basic framework of the body, leading to diseased state can be treated by maintaining the *oja* balance.

KEYWORDS: *Oja*, *Vyadhikshamatwa*, *Oja vistransa*, *bala*.

INTRODUCTION

In Ayurveda, ancient healing science encourages the health maintenance through balance in diet and lifestyle by use of herbs. *Oja* gives *bala* for *Vyadhi-ksamatwa* which fight against infection and provides resistance to various types of disease by process of *Vyadhi-ksamatwa* and *vyadhiutpadakpratibandhakatwam*. *Vyadhi-ksamatwa* made up of two words *vyadhi* and *kshamatwa*. The meaning of term *vyadhi* means to harm to injure, to damage. The

term *kshamatwa* means to suppress or to resist. The term *Vyadhi-ksamatwa* means the power of resistance to disease and it was first defined by Acharya Chakrapani, commentator of *Charaka Samhita*. *Vyadhibalavirodhitwam* means capacity of body to fight against the manifested disease and *vyadhiutpadapratibandhakatwam* means capacity of body to not allow manifestation of disease or pathogenesis.^[2]

What is Oja^[3]?

Synonym: *Bala* and *prakrutsleshma*, *sharirasneha* (Nemade, 2017), *kanti*, *Prabha*, *Prakash*, *jeevanshakti*, *jananshakti*, *tej*. (Dr. Sakshi Panjgotra, 2018) *Oja* is thought to be the energy that is responsible for maintaining physical, mental, and spiritual health. It is believed that when a person has strong *oja*, they are more likely to have good health and a positive outlook on life. *Oja* is also believed to be the energy that flows through the body and helps to maintain balance and harmony. It is said that when *oja* is balanced and strong, it can help to heal physical, mental, and spiritual issues. (Nemade, 2017). *Oja* is unique in that it cannot be encompassed in *dosha*, *dhatu*, or *mala*. It is not a *dosha* as it is not responsible for the *prakruti* of an individual (*Prakrutiarambhaka*). It is not a *dhatu* because *dhatu* has a very specific character of nourishing and producing the next *dhatu*, and *oja* is known to sustain the body and give strength to it, but it does not nourish a *dhatu*. Due to its high purity, it cannot be contemplated as *mala*. *Oja* is considered to be an esteemed excellent part of *shukradhatu*. It can be thought of as an *upadhatu* that gives the body strength and aids in its maintenance. (Nemade, 2017)

Importance of *oja*^[3]

- *Oja* is responsible for maintaining vitality throughout life and is considered superior among all sites of vitality (*Pranayatana*) according to Acharya Charka.
- During gestational life, *Oja* is crucial for the vitality of the foetus, and its stability in the 8th month is essential for a full-term birth.
- *Oja* is directly related to the superior functions of all bodily tissues (*Dhatus*) and provides strength to both the body and mind.
- The quality and quantity of *Oja* determine physical and mental strength.
- *Oja* plays a key role in maintaining immunity (*Vyadhikshamatwa*) and is important for preserving health, preventing diseases, and combating disease pathogens if they occur.
- The presence of *Oja* is necessary for the proper functioning of the *doshas*, the regulatory factors of the body.

- *Oja* is considered the most refined product of digestion, metabolism, absorption, and assimilation.
- It represents the sap of one's life energy and, when sufficient, is associated with immunity, while its deficiency can result in weakness, fatigue, and diseases.
- Overall, *Oja* is the sap of the entire physiology and plays a vital role in sustaining a healthy life. (Patil S., Review on concept of ojas in Ayurveda with reference to immunology, 2021)

Site of *oja*

According to *Acharya Bhela*, there are twelve sites of *oja* in the body. These sites are *rasa* (*Shukla*), *shonit*, *mamsa*, *medo*, *asthi*, *majja*, *shukra*, *sweda*, *pitta*, *sleshma*, *mutra*, and *pureesha*. *Oja* is not a single entity, but rather it has different functions at each of these sites. Its ultimate purpose is to protect the body and provide strength. (Nemade, 2017)

Properties of *oja*^[2]

Oja residing in the heart is white, slightly red, and slightly yellow in colour. It has a sarpivarna hue, is sweet in taste, and has an odour similar to parched cereal (*Lajagandhi*). (Dr. Sakshi Panjgotra, 2018) Charka has also proposed ten qualities of *oja* which are similar to milk and ghee, but opposite to *Madya*. These characteristics include guru, shita, mrudu, snigdha, bahala, madhura, sthira, Prasanna, picchila, and slakshna. (Nemade, 2017)

Functions of *oja*

1. The primary role of *Oja* is to ensure the body's survival and maintain its sustenance.
2. It also helps to tune up the body, soul, mind, and all sense organs with each other.
3. *Oja* is also known as 'bala' due to its ability to strengthen the body.
4. An individual with a well-nourished and durable body is said to possess bala.
5. Dalhana states that '*mamsadhatu*' is the representative of all seven dhatus, and the remaining dhatus should be considered in a similar manner.
6. *Bala* helps to ensure that all types of movements in a living body are smooth and obstruction-free.
7. It also provides a person with a pleasant voice and colour.
8. *Oja* helps the sense organs to function satisfactorily, and in intrauterine life, it performs the proper union of ovum and sperm by means of its excellence.
9. It also contributes in the primary stages of foetal development and helps in the differentiation of various organs and systems. (Nemade, 2017)

Formation of ojas^[4]

Various references in ancient texts of Ayurveda depict the formation of ojas in the human body. Acharya Chakrapani explains that *ojas (para oja)* is present in dormant form in *shukra* (sperms) and *shonita* (ovum) of parents. After conception, it is manifested as the first body component in intra-uterine life and is termed as *garbhasara* (basic constituent of embryo), which nourishes the embryo. After birth, *oja (apara ojas)* is formed as essence during the metabolism of each dhatu. It is the unctuous component of each dhatu having its purest form and supreme quality. There are certain controversies regarding the actual entity 'ojas' as some ancient scholars had termed ojas to different entities which are altogether different from each other. *Vridhha Vagbhata*, the author of *Ashtanga Samgraha*, opines that *ojas* is the *sara* (essence) of *shukradhatu*, while *Acharya Sharangadhara* considers it as an *upadhatu* (metabolic by-product) of *shukradhatu*. *Vagbhata*, the author of *Ashtanga Hridaya*, opines that it is a metabolic waste product of *shukradhatu*. In spite of all these views, looking at the functions and properties of *oja*, it became evident that ojas is the purest and finest essence which is formed from all the seven dhatus of the body, which also is the view of *Acharya Sushruta*. (Patil S., Review on concept of ojas in Ayurveda with reference to immunology, 2021)

Types of oja^[4]

Acharya Chakrapani classified oja into two types among 20 types (Kamlesh, 2022)

1. Para oja

- *Para Oja* is the type of *oja* that resides in the heart, according to *Acharya Charaka*.
- It is the supreme type of oja which is most important for life, and its quantity is *Ashta Bindu* (eight drops).
- It is highly pure (without any waste ingredients).
- *Para Oja* is responsible for the continuation of life, so whenever there is a decrease or loss in its volume, it can lead to grave diseases and even instantaneous death. Therefore, the protection of *Para Oja* should be given upmost importance (Patil S. A., 2021)

2. Apara oja

- *Apara Oja* also known as *Shlaishmika Oja*, is the Oja that exists throughout the body.
- It shares properties similar to *Shleshma*. *Acharya Charaka* states that a healthy individual possesses *Ardhanjali* (half anjali) of *Apara Ojas*, where anjali represents the volume

equivalent to two hands joined together in the shape of a cup. However, this measurement is specific to each individual.

- In ancient Ayurveda texts, Anjali Pramana serves as the unit of measurement for body fluids.
- Any reduction in the volume of Apra Ojas leads to a decrease in bodily strength and the emergence of various ailments

- **Sahaja bala**

Sahaja Bala refers to the inherent power of resistance to diseases that exists in an individual since birth, making it a natural or innate strength. Some individuals exhibit physical strength right from their birth, while others may display physical weakness from an early age. According to Acharya Charka's explanation, Sahaja Bala encompasses the natural strength of both the body (Sharira) and mind (Satva). It can be likened to the constitutional strength of an individual. This inherent strength does not depend on external factors for its development or growth. It is evident that certain individuals possess natural strength, while others are naturally weaker, which can be attributed to the presence of Sahaja Bala acquired through genetic inheritance.

- **Kalaja bala**

Kalaja Bala refers to the power of resistance to diseases that is influenced by seasonal characteristics and the age of an individual. This bala fluctuates and reaches its lowest point during Adanakala. Adanakala corresponds to the seasons of Shishira (winter), Vasanta (spring), and Grishma (summer), which are characterized by hot weather. Conversely, this bala is conserved and reaches its highest optimal level during Visargakala. Visargakala corresponds to the seasons of Varsha (monsoon), Sharada (autumn), and Hemanta (pre-winter), which represent the cooler seasons of the year. In terms of age, the highest Kalaja Bala is observed in middle-aged individuals, while it tends to diminish in older individuals.

- **Yuktikrita bala**

Yuktikrita Bala pertains to the enhancement of body resistance against diseases through the implementation of appropriate nutrition and Rasayana (rejuvenation) therapies. This type of Bala is attained by adopting a well-balanced diet and incorporating suitable lifestyle modifications. The combination of proper nourishment and lifestyle adjustments plays a crucial role in achieving and maintaining this form of strength. By providing the body with

the right nutrients and following a healthy lifestyle, individuals can fortify their immune system and enhance their overall resistance to diseases (Patil S. A., 2021)

Qualities of *oja*

Acharya Charka elucidates the ten qualities of Ojas, which bear resemblance to those of *Kshira* (milk) and *Ghrita* (ghee), while being completely opposite to *Madya* (alcohol) and *Visha* (poison). These qualities are as follows:

1. *Guru* (Heaviness): *Ojas* possesses a substantial and weighty nature.
2. *Sheeta* (Cool): It imparts a cooling effect to the body.
3. *Mridu* (Soft): *Ojas* has a gentle and soft quality.
4. *Shlakshna* (Smooth): It exhibits a smooth and lubricating nature.
5. *Bahalam* (Capable of spreading): *Ojas* has the ability to spread and permeate throughout the body.
6. *Madhura* (Sweet): It carries a sweet taste.
7. *Sthira* (Stable/firm): *Ojas* provides stability and firmness to the body.
8. *Prasanna* (Pleasant): It brings about a sense of joy and contentment.
9. *Picchila* (Sticky): *Ojas* possesses a sticky or cohesive quality.
10. *Snigdha* (Unctuous): It has an oily or unctuous characteristic.

AIMS AND OBJECTIVE

1. To study concept of *ojavistrans* caused in Ayurveda
2. To study *ojavistrans* mentioned in ancient literature in relation to connective tissue disorder such as *amavata*, *vatarakta* etc.

MATERIAL AND METHODS

The study of relevant topics is done from the classical literary material such as Charaka Samhita, Sushruta Samhita with Dalhana's commentary, Ashtanga Samgraha, Ashtanga Hridaya and Sharangdhara Samhita. Textbook of modern medicine and pathology have referred to collect material about connective tissue disorder such as rheumatoid arthritis, systemic lupus erythematosus, systemic sclerosis. Relevant articles about *oja*, *ojavistrans*, systemic lupus erythematosus and other connective tissue disorder have also been reviewed.

Review of Literature and Discussion^[5]

Vyadhi-ksamatwa is the ability of the body to resist disease. Vyadhi-ksamatwa rather than representing the immunity, it implies the loss of integrity, co-ordination and balance between

the *Tridoshas* and the *Saptadhatus* (VD. Neha Madhukar Pawar, 2020). *Vyadhi-ksamatwa* can be affected by various factors as *Tridosha*, *Saptadhatus* and *Oja* as well as by environmental factors. *Oja* functions to provide bala and *Vyadhi-ksamatwa*. *Oja* resists undesirable changes that occur during body's vital functioning. It also provides the body with the essential, important substances, that inhibit, destroys or neutralize the virulent factors that might affect the body function (Dr. J.S. Tripathi, 1999). Acharya Sushruta classified the *oja* based on the deviations in the quality and quantity of the *oja* into three types of abnormalities as follows (Patil S. A., 2021) (Dr. Rohit Sharma, 2022):

Table 1.1

Abnormalities	Characteristics	Symptoms
<i>Oja visramsa</i>	Displacement of oja from its own, original site	<ul style="list-style-type: none"> • <i>Sandhi Vishlesh</i> (looseness of joints) • <i>Gatra sada</i> (weakness of the body) • <i>Dosha Chyavanam</i> (provoked Tridosha move away) • <i>Kriya Sannirodha</i> (inability to perform normal function)
<i>Oja vyapat</i>	Qualitative disorientation	<ul style="list-style-type: none"> • <i>Stabha gurugatrata</i> (stiffness and feeling heaviness in the body) • <i>Vata Shopha</i> (swelling due to imbalance in the vata) • <i>Varna Bheda</i> (discoloration) • <i>Glani</i> (exhaustion) • <i>Tandra</i> (drowsiness) • <i>Nindra</i> (sleep)
<i>Oja kshaya</i>	Decrease in quality and quantity	<ul style="list-style-type: none"> • <i>Murcha</i> (unconsciousness) • <i>Mansakshaya</i> (decrease of muscles) • <i>Moha</i> (mental disturbance) • <i>Pralap</i> (delirium) • <i>Mrityu</i> (death)

Oja visramsais displacement of *oja* from its normal place or deviation of *oja* and it becomes unable to perform its normal function. It can also result into impairment in distribution of *oja* all over body especially from joints. Displacement of *oja* from its normal function produces following symptoms:

Sandhi vishlesh- *Shleshmak kapha* is present in all over *sandhiya* and displacement of *oja* i.e. *Shleshmak kapha* from all over joints of body or deviation of *oja* from its normal place which leads to subluxation of joints due to *kapha kshaya* and *prakrit kapha* act as *oja* in body.

Gatra sada- It is due to loss of *oja* (*Saaransh* of *Saptadhatu* provide strength, power) from its normal place results in weakness of body joints, numbness in limbs of body and fatigue.

Dosha chyavanam- *Dosha* which are in equilibrium state get *prakupit* by stress and trauma and got in *chlaayman* state, takes place the site of *Shleshmak kapha* and replace the *kapha* which act as *oja*.

Kriya sannirodha- When abnormal *doshas* by the process of *doshachayawan* replaces *oja* which is present in the form of *Shleshmak kapha* in *sandhiya* impaired and obstruct the normal physical and mental function.

Connective tissue is the tissue that binds, supports the framework of the body. It is characterized by the presence of – cells and extra cellular matrix. The connective tissue that connects the skin, muscles and bones, as tendons and ligaments, is primarily made up white fiber (Made up of collagen protein) and the yellow fiber (made up of elastin protein) that is present in the extracellular matrix.

Connective tissue disorders results when inflammation of the connective tissue joining the bones, muscles occurs. For example, Rheumatoid arthritis, systemic lupus erythematous, scleroderma, granulomatosis with Polyangilitis, Churg-Strauss Syndrome etc.

Endoplasmic reticulum is the important cell organelle that is present in every eukaryotic cell. The two types of endoplasmic reticulum, smooth and rough, are classified based upon the presence of ribosome on the surface of the endoplasmic reticulum. The rough endoplasmic reticulum is involved in protein synthesis, while smooth endoplasmic reticulum is involved in the cell membrane and detoxification process. The most important function of endoplasmic reticulum is the protein folding and processing (Anagha Vishwas Ranade, 2015). When endoplasmic reticulum is under stress conditions of hypoxia, hypoglycemia, altered calcium levels etc., unfolded proteins accumulates in the reticulum and cellular activities changes, that may lead to survival or apoptosis of the cell. The abnormalities that occur due to *oja* disturbance are closely related to this cell apoptosis and thus, its symptoms (Anagha Vishwas Ranade, 2015). This shows the relation between the *oja* and the cell. This can also be the potential cause of the connective tissue disorder.

The neuropeptides and *oja* also work in co-ordination to maintain the equilibrium of *tridosha* (Bimal Chandra Jha D. P., 2019). The neuropeptide are the small protein molecules that are synthesized and released by the neurons. The neuropeptides that maintains the bone

homeostasis, can also produce the disorder in the in it due to disturbance. The symptom produced by this disturbance is found similar to that of *Oja visramsas*.

According to Ayurveda, Following disease can be correlated with ojavisramsas symptoms are

1. Kalaykhanja
2. Pakshaghat
3. 6 types of sandhimukta bhagna
4. Kapha vridhi
5. Vaatika jwara
6. Sandhi marmaviddhalakshana

Ojavisramsas sign and symptoms	Kalaykhanja	Pakshaghat	Sandhimukta Bhagna	Kapha vridhi	Vaatik Jwara	Sandhi marma viddha
Sandhivishlesha	+	+	+	+	+	+
Gatranamsadnam	+	+	+	+	+	+
Doshachaywana	+	+	+	+	+	+
Kriyasannirodha	+	+	+	+	+	+

According to modern, following diseases can correlated with ojavisramsas symptoms are:

1. Ehler Danlos syndrome
2. Bastrup's disease
3. Nursemaid's elbow
4. Cerebral palsy
5. Polyarteritis nodosa
6. Brachial plexus injury
7. Severe osteoarthritis

Ojavisramsas sign and symptoms	Ehler Danlos Syndrome (EDS)	Bastrup's disease (Kissing spine)	Nursemaid's elbow	Cerebral palsy (CP)	Polyarteritis nodosa	Brachial plexus injury
Sandivishlesha (Subluxation of joints)	+	+	+	+	+	+
Gatranamsadnam (Weakness/Fatigue/numbness)	+	+	+	+	+	+

Doshachaywana (Hereditary/ Degeneration/ neurovascular/ Trauma)	+	+	+	+	+	+
Kriyasannirodha (Trouble moving the joint)	+	+	+	+	+	+

CONCLUSION

Ayurveda literature reveals that oja is of core importance in maintaining the tridoshas and saptadhatu and it also provides Vyadhi-ksamatwa to resist various infections and disease. Oja behave as prakrit Kapha and prakrit kapha provide Bala and it is the natural elixier of body. It gives immunity to the body and protect from diseases. When the prakrit kapha is displaced from sandhi sthana to different other site by exacerbation factors, Vata get reside and vitiated in Sandhi sthana and manifests as looseness or subluxation of joints with severe pain in joints and restricted painful movement due to migratory vitiated vata doshas and results in trouble moving the joints occur. It is also associated with fatigue, weakness, muscular wasting in joints along with numbness in body. Similarly in modern medical science, since anti-UI-RNP antibody is the hallmark of HCTD, the mixed connective tissue disease assumption is that anti-UI-RNP antibody and its antigen plays a role in pathogenesis of HCTD.

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