



Interrelation Between *Ojas* and Autoimmune disorders: A Narrative Review

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Abstract

Introduction- The *Ojas* which is present throughout the body (*sarvasariravyapi*) is responsible for both disease resisting power and immunity. *Ojas* is excellent essence of all dhatu and is responsible for sustaining the life. In different classical Ayurvedic texts *Ojas* has been described elaborately with its type, site, quantity, function, and derangement etiology. Autoimmune disorders occur when the immune system attacks self-molecules as a result of a breakdown of immunologic tolerance to autoreactive immune cells. the incidence of AIDs is estimated at 3–5% worldwide. The present review explains some important information about the fundamental concept of *Ojas* & interprets its relation with autoimmune disorders. **Aim-** To explore *Oja Vikruti* in relation with autoimmune disorders. **Materials and methods-** Original textbook of *Charaka Samhita*, *Susruta Samhita*, *Astanga Hridaya* along with their commentary and other available published articles in peer-reviewed journals, have been thoroughly screened, compiled and organized in a systemic manner. **Discussion-** Exact reasons of AID's are not known but there are some mutual etiological factors and manifesting symptoms for AID and *Oja vikruti*. As *Ojas* is responsible for maintaining immunity so it may play an important role in manifestation of AID. **Conclusion-** Various authors have described the concept of *Ojas* in their own view but it is difficult to define *Ojas* as per modern view. Therefore, this review article is an attempt to understand the concept of *Ojas* and its relation with AID.

Keywords- Autoimmune disorders, immunity, *Ojas*, *Oja Vikruti*

Introduction

Ayurveda is one of the ancient system of medicine which mainly focuses on maintaining the healthy state of healthy human being and treating the diseases of unhealthy one¹. There are many fundamental principles described in various classical texts of ayurveda like *Dosha*, *Dhatu*, *Mala* etc and one of the unique concept of ayurveda is *Ojas*. *Acharya Susurta* described *Ojas* as an excellent form or essence of all seven *Dhatus* which provide *Bala* or strength to the body. The word strength is applied to many concepts such as, strength means immunity². *Ojas* provides strength to body; hence body can be sustained against various infections. *Ojas* is stated as cause and its effects being the resistance power viz. *Bala* is responsible for survival and performing important functions inside the body³. *Acharya charaka* also mentioned *Oja* in *Dash Pranayatana* (seats of *Prana*/life)

In a word, *Ojas* has been considered vital in the defence mechanism of the body. *Ojas* is considered as resistance to decay and degeneration of body and immunity against the disease. The disease such as AIDS, Diabetes etc. manifest feature of decreased immunity or rather *Oja Kshaya*. In Ayurveda *Oja Vikruti* is broadly classified as *Oja Visransa*, *Ojo Vyapat* and *Oja Kshaya*.

Generally, the concept of *Ojas* is connected with the concepts of strength (*Bala*) and defense mechanism or immunity (*Vyadhikshamatva*). It is referred to part of vitamins, albumin, glycogen, internal secretions of testicles, ovary, prostatic secretions by Dr. Ghanekar. Thus, the factors responsible for strength and immunity can be applied to assess the status of *Ojas*. Some researchers propose that the endoplasmic reticulum and its functions in conventional physiology seem to resemble *Ojas*.⁴

In present era, different types of immunological disorders are emerging day by day, thus giving significance to grow immune strength of body and resistance towards different diseases. In autoimmune disorders body's immune response are so excessive and long lasting that they can seriously damage numerous tissue and organ systems which can have a devastating impact on health, well-being and quality of life.⁵

Aim and Objectives-

To explore *Oja Vikruti* in relation with autoimmune disorders.

Materials and Methods-

The data related to *Ojas* and *Oja Vikruti* were obtained, compiled and analysed from various classical literatures (*Bruhatrayi*, *Laghutrayi* with their commentaries). for better understanding of *Ojas* and autoimmune disorders, different published articles in peer-reviewed journals, have been thoroughly screened, compiled and organized in a systemic manner. Research gate, pub med, google scholar were referred

Concept of Ojas in Ayurveda-

At the time conception, *Ojas* is formed as the first body component in intra-uterine life⁶. It is termed as the basic constituent of embryo (*Garbha sara*) and resembles with morula stage (*Kalala*). The embryo is nourished from this essence component. Further it is nourished and developed during gestation and when organs are formed it resides in heart⁷. After birth, *Ojas* is formed as essence during the metabolism of each *Dhatu*⁸. It is the unctuous component of each *Dhatu* having its purest form and supreme quality. Some *Acharya* opine that it is the essence of reproductive tissues (*Sara of Shukra Dhatu*)⁹. . *Sharangadhara* considers it as a metabolic by-product (*Upadhatu*) of reproductive tissues (*Shukra*)¹⁰. *Vagbhata* opines that it is a metabolic waste product of reproductive components (*Shukra Dhatu*).

According to *Sushruta* it is having *Shukla Varna*¹¹(clear white) whereas other *Acharyas* have mentioned three colours of *Ojas* i.e., a clear substance with the tinge of red and yellow. According to *Charka*, its taste is similar to that of honey i.e. *Madhura rasa* (Sweet) and smell resemble with *Laja* i.e., *Lajagandhi* (parched cereal)¹².

Acharya Charaka has explained ten qualities of *Ojas* which are similar to milk and *Ghee* while totally opposite to *Madya* (alcohol) and *Visha*(poison). which are *Guru* (heavy), *Sheeta* (cold), *Mridu* (soft in nature), *Shlakashna* (smooth), *Bahalam* (which spreads into the minute channels), *Madhura* (sweet in taste), *Sthira* (stable or firm), *Prasanna* (pleasant), *pichhilam* (sticky), *Snigdha* (unctuous)¹³.

According to *Acharya Susurta* it is *Somatmaka* (cool), *Snigdha* (unctuous or oily), *Shukla* (white in color), *Sheeta* (cold in nature), *Sthira* (stable or firm), *Sara* (flowing or moving and liquid in nature), *Viviktam* (clear or transparent), *Mridu* (soft in nature), *Mritsnam* (slimy) in nature¹⁴.

According to *Acharya Chakrapani* there are two types of *Ojas* found in the body. First one is *Para Ojas*, *Acharya Charaka* mentioned that *Hrudaya* (heart) is dwelling place of *Para Ojas*. It is best and most important. Its measurement is *Ashta bindu* (eight drops). This *Para Ojas* is responsible for continuation of life, therefore whenever, there is any decrease or loss in the volume of *Para Ojas* it would give rise to severe diseases and will cause instant death of that person. second one is *Apara Ojas*, which is also known as *Shleshmika Ojas* as its properties are similar to that of *Shleshma (Kapha)*. *Apara Ojas* is present all over the body. the quantity of *Ojas* in a healthy individual is *Ardhanjali* (half fistful)¹⁵. The seat of *Apar Ojas* is the ten vessels connected with *Hrudaya*. Any diminution in the volume of *Apara Ojas* will result in the absence of strength of the body and causes of various diseases.

The prime and most important function of *Ojas* is to maintain vitality and sustaining the integrity of life. It is responsible for providing nutrition and enhancing the immune strength of the body. It helps to bring stability, proper growth, significant strength in muscle tissue (*Mamsa Dhatu*). It is responsible for maintaining all movements without any obstruction or blockage. *Ojas* is responsible for the superior quality of voice and

complexion. Due to the presence of normal *Ojas*, all external and internal senses including the mind do their functions properly. Thus *Ojas* is responsible for sensory functions and perception of knowledge¹⁶.

Ojavikruti(Abnormalities of Ojas)- *Ativyayama* (Excessive physical exercise), *Anashana* (Fasting for long period), *Chinta* (Constant worry), *Ruksha annapana* (Consumption of food which are dry in nature), *Pramitashana* (Consuming very less quantity of food), *Vata-atapa sevan* (Excessive exposure to heavy blows of wind and sun heat), *Bhaya* (Grief and sorrow), *Prajagar* (Keeping awake at nights), *Kala* (due to old age), *Abhigata* (Mental or physical Trauma or injury to Marma or vital parts of the body), *Kopa* (Anger), *Ativyavaya* (Excessive sex), these are the factors which are responsible for *Oja Kshaya*¹⁷.

Ojas may get deranged or may suffer from quantity and qualitative loss. According to *Sushruta Ojavikruti* is observed in the form of these three stages chronologically viz. *Ojavisramsas*, *OjaVyapata* and *Ojakshaya* respectively. Where the *Lakshanas* of *Vishramsas* indicate beginning of *Karmahani*, that of *Vyapad* indicate *Dosha Dushti* which produces *Ojaguna-hani* and *Kshaya* indicates *Pramanata hani*.

The three stages of *Oja Vikruti* may occur in various conditions and diseases ranging from physical and mental fatigue to acute and chronic, mild and severe types of diseases. These stages are as, *Oja Visramsas* (first stage)- *Sandhi Vishlesha* (looseness of joints), *Gatra Sada* (weakness of the body), *Dosha Chyavanam* (provoked Tri Doshas move away from their normal seats), *Kriya Sannirodha* (inability to perform normal function)¹⁸.

Symptoms of *Oja Vyapat* (second stage)- *Stabdha Gurugatrata*-(stiffness and feeling of heaviness in the body), *Vata Shopha*- Swelling caused by *Vata Dosha* impairment, *Varna Bheda* (change in complexion or discoloration), *Glani* (exhaustion), *Tandra* (drowsiness or stupor), *Nidra* (sleep)¹⁹. Symptoms of *Oja Kshaya* (third stage) - According to *Sushruta Samhita Murchha* (unconsciousness or fainting), *Mamsakshaya* (wasting of muscle or decrease in muscle tone), *Moha* (mental disturbance specially in judgment/confusion), *Pralapa* (delirium/ irrelevant talking), *Marana* (death) are *Lakshana* of *Oja Kshaya*²⁰.

According to *Charak Samhita, Bibheti* (person constantly suffers from fear or inferiority complex), *Durbalo-abhikshanam* (physical and mental debility), *Dhyayati* (worries always without apparent reason), *Vyathita Indriya* (feels discomfort in the sense organs), *Duskhaya* (developed impaired or loss of complexion of body), *Durmana* (feeble mental stamina) *Ruksha* (dryness or roughness), *Shama* (skin becomes black), *Kshaya* (Emaciation of the body) these are symptoms of *Ojakshaya*²¹.

Autoimmune disorders

There are more than 100 types of autoimmune diseases that affect a wide range of body parts like Rheumatoid Arthritis, Myositis, Psoriasis, Multiple sclerosis, SLE, Grave's disease etc. Despite the varying types of autoimmune disease, many of them share similar symptoms. Common symptoms of autoimmune disease include²²:

- Fatigue
- Joint pain and swelling
- Skin problems
- Abdominal pain or digestive issues
- Recurring fever
- Swollen glands

Till this date it is not known that exactly what causes autoimmune disease, but several theories point to an overactive immune system attacking the body after an infection or injury. Studies indicate these diseases likely result from interactions between genetic and environmental factors. Gender, race, and ethnicity characteristics are linked to a likelihood of developing an autoimmune disease. We do know that certain risk factors increase the chances of developing autoimmune disorders, including²³:

- **Genetics:** Certain disorders such as lupus and multiple sclerosis (MS) tend to run in families..
- **Weight:** Being overweight or obese raises your risk of developing rheumatoid arthritis or psoriatic arthritis. This could be because more weight puts greater stress on the joints or because fat tissue makes substances that encourage inflammation.

- **Smoking:** Research has linked smoking to a number of autoimmune diseases, including lupus, rheumatoid arthritis, hyperthyroidism and MS.
- **Certain medications:** Certain blood pressure medications or antibiotics can trigger drug-induced lupus, which is often a more benign form of lupus. specific medications used to lower cholesterol, called statins, can trigger statin-induced myopathy. Myopathy is a rare autoimmune disease that causes muscle weakness.

Discussion-

Ojas is responsible for the vitality of the body throughout life. It also plays a vital role in combating disease pathogens if the disease occurs. According to *Indu* in *shashilekha* commentary of *Ashtang Hridaya*, *Doshas* even in their equalibrium state are unable to carry their functions without the presence of *Ojas*, which explain the physiological significance and importance of *Ojas* thus quantitative and qualitative depletion of *Oja* can lead to death.

In *Ojavikruti* stages *Oja Vishramsa* indicates *Karmahani* which can be corelated with weakening of body function in autoimmune disorders, *Ojavyapad* indicates *Ojagunahani* due to *Dosha Dushti* which can be corelated with malfunction of immune system. So it can be assumed that *Ojas* has an important role in manifestation of autoimmune disorders.

The exact cause of autoimmune disorders is not known but it can be triggered by some environmental factors. In case of lupus and development of juvenile dermatomyositis, exposure to ultraviolet radiation from sunlight act as a triggering factor and in *Ayurveda Vata-Aatapa Sevana* is mentioned as cause of *Oja-Kshaya*. In some cases nutrition act as a triggering factor which can be corelated with *Nidana Pramitashana* meaning regular intake of only one Rasa (*Ekrasa-abhyasa*) and *Anashana* (fasting for long period) which can lead to nutritional deficiency. Another triggering factor is tissue injury which can be corelated with *Nidana Abhighata* (trauma/ injury), for example Meniere disease (inner ear disorder) can be caused by head injury. So it can be said that there are some mutual factors affecting the *Ojas* and causing autoimmunity disorders.

With mutual factors there are also some mutual symptoms in *Ojavikruti* and autoimmune disorders. For example *Sandhivishlesha* and *Gatra sadana* of *Oja visramsa* are similar to joint pain and fatigue of AID. Similarly *Vata shopha* with joint swelling and swollen glands and *Varna Bheda* of *Oja vyapad* can be compared with skin problems of AID. In *Doshachyavana lakshana* of *Ojo Visramsa* under the *Kapha Dosha* there are symptoms like *Aruchi*, *Avipaka*, *Chardi* which can be linked with digestive issues of AID.

Conclusion-

Ojas is that factor in body which is responsible for maintaining immunity (*Vyadhikshamatva*). It is important for the preservation of health and prevention of diseases. by doing its normal functions it maintains homeostasis in body. In ayurveda *Vyadhikshamatva* is defined as strength to resist disease and oppose the pathogenesis factors of disease.

As *ojas* provides *Bala* and immunity to the body and it is immune system which is affected in autoimmune disorders and mistakenly attacks normal cells, tissue and organs of the body. Thus weakening body function and even turning life threatening. So it can be assumed that *Ojas* may play an important role in manifestation of Auto immune disorders.

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