OJA VIS-À-VIS IMMUNOLOGY IN AYURVEDA

Aparna Singh

Ph.D. Assistant Professor, Department of Kriya Sharir, R.K. Ayurvedic Medical College and Hospital, Sathiyon, Azamgarha, Uttar Pradesh, India

Email: appisingh23@gmail.com

ABSTRACT

Ojas in Ayurveda is considered as the resistance to decay and degeneration of the body and immunity against diseases. It is considered as quintessence of all the dhatus and represents the bala (strength) of all dhatus. The concept of immunology as described by ancient Ayurvedic scholars is stated as vyadhihkshamatwa or ojabala of an individual. The sahaja bala may be clinically correlated as natural immunity whereas kalaja and yukti krita bala as acquired immunity. The Ayurvedic approach to bala or vyadhihkshamatwa is describes in two states viz. vyadhibala virodhitwa i.e. antagonistic to the strength and virulence of disease and vyadhyutpada vibandhakatwa i.e. the capacity to inhibit the factors causing disease. The immune disorders were also broadly classified as oja vyapath, oja visramsa and ojakshya. The facts which have emerged from modern researches relating to natural resistance do not contraindicate the existing ayurvedic conceptual scheme of natural resistance.

Keywords: Oja, bala, vyadhihkshamatwa, immunity.

INTRODUCTION

Ayurveda the age-old science of life has been contributing to the health of society since times immortal. This science has witnessed drastic changes in environments, lifestyle and so on. In spite of this changing scenario, Ayurveda continuously has contributed as a major system in maintaining and fulfilling the health related needs of Indian society. This had been possible because of strong, universal, unchanged principles of Ayurveda. The epitome of Ayurveda science and utility is firmly standing on fundamental principles of Ayurveda. Ojas literally means “vigour”. It is the quite essential substance of our life, energy and exists on a subtle level in the body. Disease strikes at the location where there is derangement of oja. The diseases in present scenario such as AIDS, diabetes etc. manifest
features of decrease immunity or rather Ojakshaya.

Materials and Methods
This article is based on a review of various Ayurvedic classical literatures. Materials related to oja, vyadhishamatwa, immunity and other relevant topics were collected as well as references were compiled, analyzed and discussed for a thorough and in-depth understanding of the concept of oja vis-à-vis immunity in Ayurveda.

DISCUSSION
Formation of Ojus
The synthesis of oja is said to be started right at the time of fertilization, when shukra (sperm) fuses with shonita (ovum) paka of shukradhatu (both shukra and shonita) takes place (fertilization) and two things formed i.e. sara (nutrient materials) and mala (excretory products). This ojas will perform its function of avastambha and support the life of garbha (fetus). Thus these are the products of conception having derived from sperm and ovum; carry the sara of all dhatus in them, which make them viable. Further nutrition and enhancement in the quantity of ojas to ardhanjali takes place by ahararasa (nutrient materials), which is derived from mother’s body and possesses qualities similar to ojas and, it also simultaneously nourishes the growing embryo. In later period of intrauterine life, when heart is developed, it enters into heart and with the vessels connected to it, circulates throughout the body of fetus; every tissue of the fetal body is supplied with ojas, and is supported by it. So that pranas (factor responsible for sustenance of life) are said to be seated in it. Hence ojas is said to be prevailing in all the stages of intrauterine life.

Types of Ojas
The ojas is considered to be of following two types viz. para oja which is of astha bindu pramana and located in hridya (heart) and apara oja which is of ardhanjal. Chakrapanidatta notes that param teja which is the sara (essence) of all dhatus, being located in hridya (heart) mixes with rasa (lymph) and circulates through dhamani (vessels) and performs nourishment of entire body. It represents the bala of all the dhatus and is present in the organism from the time of fertilization.

Nutrition of Ojas
Ojas has to be synthesized by body in continual manner because it gets utilized in the course of its functions. Hence, to fulfill the amount utilized and to keep intact the total quantity reinforcement must be needed. Acharya Sushruta says that food is the basis of all life as well as of bala, varna and ojas. The same view also holds by Charakacharya i.e. body is the outcome of food. At some other place, he states the same fact in other words that ahararasa nourishes all the body tissues as well as ojas. Thus it is obvious that ojas is produced and nourished from food substances, which are conductive to ojas. But, the conversion of food, in spite of having all nutritive factors of ojas, dhatus, bala and varna etc. into specific metabolite depends upon the proper functioning of Agni (digestive factor). Another important factor that serves as an important entity for internal transport system of body is termed as Srotasas.
nutrient factors, the precursors of bodily elements are recognized and they transported to the place where they are subjected to digestion and metabolism for the formation of latter body tissues.\(^8\)

**Synthesis of Ojas**

The mechanism of formation of Ojas does not become clear merely by defining it as sara of all dhatus i.e. it does not alone sufficient to known whether it is synthesized by each dhatu in the form of its own sara and then collectively called as sarvadhatusara or, it is collectively synthesized through series of reactions from the contributions made by each dhatu. Yet commentators have tried to make the picture clear on the basis of which we can say that it takes place in both ways.\(^9\)

Each dhatu synthesizes its own Ojas in the course of formation of dhatus and former nourishes the already formed Ojas of sthayidhatu. In other words, poshaka ojas nourishes the poshya ojas which is already formed and stable. Some of it, from each dhatu possessing similar qualities or/and having affinity to produce a new substance i.e. sarvadhatusara might enter into general circulation to contribute for the formation of it.

Hence, from rasadhatusara of rasadhatus is produced and it is taken up by sthayi rasadhatus for nourishing the already formed sthayi ojas residing in it since it is alike in properties and nature to that of rasadhatus, it is taken up by srotasas of rasadhatus only. Likewise from each dhatu, ojas is produced at the time of that dhatwagnivyapara, from its specific nutrients. But the sara of shukradhatu is paid more importance and emphasis.

Though each dhatu synthesizes its own Sara individually and contributes for the formation of sarvadhatusara, then is yet another mechanism by which production of sara of shukradhatu takes place, because from this sara of shukra, after fertilization, all dhatus are formed since it might have some portion of sara of all dhatus collectively.\(^10\)

**Seat of Ojas**

The Ojas is said to be located in the hridaya (heart)\(^11\). It mixes with rasa and circulates through the dhamanis (circulating vessels). The heart plays an important role in distribution of sleshmika ojas to all the tissues of the body. The channels of transport are the dasha mahamula dhamanis which carry oja to the entire body. These channels permit the exudation (filtration, diffusion and permeation) and maintain the steady flow to the body tissues for nourishment.

**Quantity of Ojas**

According to Charaka, the quantity of ojas in a healthy individual is ardhanjali while vagbhatacharya an astangahrdayakara has stated it to be one prasrta in quantity. It is equitant to volume of the cavity formed by hollowing one’s own palm, not mean two Pala in weight for present context. In Padmapurana, the quantity of ojas (bala) is stated to be 1/4 kudawa which is approximately 1/4 anjali when individualized norm is taken as standard measure. By summation of the above statements it appears that ojas is ardhanjali in an individual and is subjected to fluctuation from 1/4 to 1/2 anjali according to the constitution.

Since Charaka also says that these fluids are always subjected to fluctuation i.e. increase or
decrease. Chakrapani Datta by quoting other authority, states that there is one more kind of ojas which is astabindu in quantity and is called as para ojas and is different from 1/2 anjali ojas i.e. shlesmika ojas. Arundatta on the other hand, observes that ojas pervades in all the cells of body and its six drops are located in hridaya.

Properties of Ojas: The properties can play an important role in understanding its multiple aspects precisely.

- **Colour:** According to Sushruta it is sukla varna (clear white) whereas other Acharyas has mentioned three colors of ojas i.e. a clear substance with the tinge of red and yellow.

- **Odour:** Lajagandhi i.e. with the smell of laja.

- **Taste:** According to Charaka, its taste is similar to that of honey i.e. madhurasa with slight kashayatva. No one else among the Acaryas have directly mentioned about the taste of ojas.

- **Pharmaco-therapeutic properties:** Twenty sharira gunas are described in classics divided in ten pairs. One out of each pair shows anabolic and / or anti-catabolic effect on body. Ojas possesses these ten gunas on the basis of which it performs various pharmacotherapeutic actions in the body.

**Ojas and Sleshma:** The kapha in its normal status is supposed to give bala (strength) to body hence it is correlated with Ojas. According to Chakrapani dutta sleshmika ojas is apara oja whose pramana is considered as adhanjali pramana.

**Ojas and Bala:** Acharya Charaka states that bala,arogya,ayu,prana and ojas are dependent on Agni. Bala is classified into three types as per samhita grantha:-

- **Sahaja bala:**-It is resistance to disease states to be prakrita (natural/inborn) and exists from birth. Some individuals are observed as physically strong from their birth whereas some are observed as physically weak from the very birth. Acharya Charaka in analyzing the Sahaja Bala has mentioned that the natural bala of the sharira and satva i.e. the body and mind are termed as Sahaja Bala. Sahaja Bala can be correlated with constitutional strength of an individual.

According to Acharya Chakrapani the constitutional strength is present in every living being form the very time of birth. This is because of the natural growth of the dhatus (tissues). Thus the natural strength does not require any extraneous factor for its growth. It is known that, there are some people who are by nature strong; some others are weak, it is genetically decided.

- **Kalaja bala:-**This bala is influenced by seasonal traits and age of the person. Bala is dissipated and lowest in adanakala. This kala corresponds to shishira, vasanta and grishma, which represents the hottest season of the year. On the other hand bala is conserved and its highest optimum level is witnessed in visargakala corresponding to varsha, sharada, hemanta ritu that represents the cooler seasons of year. As
regards to Bala the childhood and age come in last descending order.

- **Yuktikrita:** It refers to the induction of body resistance against diseases by resort to appropriate nutrition and rasayan therapy.\(^{15}\)

**Function of Ojas:**

*Ojas* plays a vital role in all three stages of life i.e. *utpatti, sthiti* and *pralaya*.\(^{10}\)

**In Utpatti:**

a. In fertilization: *Ojas* is said to be present in the sperm and ovum in the form of their *sara* or essence, in the absence of which, fertilization does not take place.\(^{1}\)

b. In growth and development of *Garbha* (fetus): After fertilization *sara* of *shukra* and *shonita* get converted in to a new substance, which is said to be *garbharasadrasah* (resultant of fusion of sperm and ovum) it is the only source of nutrition of *garbha* (fetus) for its growth and development.

c. In viability or non-viability of fetus: In eight month of pregnancy *ojas* becomes trans-placentally circulating entity. If the fetus gets delivered in this month, in the state when *ojas* is in maternal body, it does not survive being devoid of *ojas*.\(^{16,17}\)

**In Sthiti Avastha:**

(a) **In maintenance of health:** *Dosha, dhatu* and *mala* are the fundamental units of the body, among there, *doshas* are said to sustain the body in their normal state. But these *doshas* even in their physiological state of equilibrium cannot sustain body which is devoid of *ojas*. It is also said that all the activities of the living body may it be *kayika, vacika, mansika* take place smoothly if it is contained with *ojas*. This it can be inferred that *ojas* influence the function of physical, sensory, psychic and other higher faculties of the body and maintain the homeostatic condition of body.

(b) **As a preventive measure:** The word *bala* used as the synonym of *ojas* by Sushruta is because of the cause and effect relationship existing between *ojas* and *bala* and hence the term *bala* in any context represents the status of *bala*.\(^{18}\)

(c) **Attaining positive health:** Positive health means something above the normal health.

**Ojas and Vyadhisammatwa**

The ayurvedic approach to immunology is in two aspects viz. *vyadhibalavrodhitwa* and *vyadhyutpadakanibandhakatwa* was directed almost exclusively to the natural and innate resistance. According to Charaka *vyadhikshamatwa* is not of the same order in all constitutions, it varies in individual regardless of their nutritional environmental and individual factors, physical and psychological factors etc. The importance of *sleshmika ojas*, its production and distribution in protection of the body against decay, degeneration and disease can be understood better by a study in cross-section described by Shushruta as *oja visramsya, oja vyapath* and *ojakshaya*.\(^{19}\)
### Table 1: The symptomatology of Oja Vikriti is described in samhitas as:-

<table>
<thead>
<tr>
<th>Oja Visransa</th>
<th>Oja Vyapath</th>
<th>Ojakshaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandhisleshana</td>
<td>Stubdha guru gatrata</td>
<td>Murcha</td>
</tr>
<tr>
<td>(looseness of the joints)</td>
<td>(inertness and heaviness of the extremities)</td>
<td>(loss of consciousness)</td>
</tr>
<tr>
<td>Gatrasada (inertness of the extremities)</td>
<td>Vatasopha (anasarca due to vata)</td>
<td>Mansakshaya (wasting of muscles)</td>
</tr>
<tr>
<td>Doshya chayava (displacement of doshas from their respective location)</td>
<td>Varnabheda (discoloration of skin or change of complexion)</td>
<td>Moha (stupor)</td>
</tr>
<tr>
<td>Kriya Sannirodha (impairment of the function of the body, manas etc)</td>
<td>Glani (fatigue of the senses)</td>
<td>Pralapa (delirium)</td>
</tr>
<tr>
<td>Tandra (drowsiness)</td>
<td>Nidra (somnolence)</td>
<td></td>
</tr>
</tbody>
</table>

Symptomatology of oja visransa, vyapath and kshaya are manifested in various diseases which are as follows:-

- **Sannipata jwara:** The symptoms of sannipata jwara in which the excited pitta and vayu bring about the visramsa of oja are stiffness all over body, coldness, and desire to sleep always, unconsciousness, somnolence, loosening of the limb, low fever and body pain.

- **Rajayakshama:** In rajayakshama due to the obstruction of the srotansi as a result of deficiency of nutrients of raktadi dhatus, lowered functioning of dhatushmas (dhatwagnis) and apachaya (catabolic events), the food ingested which when subjected to the process of digestion in kostha is changed into malas, little of nutrition is available for production of ojas.

- **Madhumeha:** In madhumeha vyadhi vata by its ruksha guna changes the ojas which is madhura in nature into one of kasaya and transports it to the mutrashaya (urinary apparatus) leading to the causation of the condition known as madhumeha. The ojas produced in this condition is qualitatively deficient. Even the impoverished ojas is lost to the body through urine.

- **Panduroga:** In pandu roga, aggravated pitta vitiates the dhatus which latter lose their integrity. Subsequently, varna, bala and sneha which are the gunas of ojas are depleted by the vitiated doshas and dhatus. The individual suffers from impoverished rakta and medo dhatus and de-vitalization. The person is then affected as nissara (loss of natural integrity, tone and strength of the tissues), shitilendriya (impairment of the integrity of the senses) and vaivarna (abnormal color or complexion of body)

### CONCLUSION

Ayurveda, the ancient health system of India, describes the holistic approach of the concept of immune system which is responsible for attaining positive health and strengthen the body to fight against diseases. Ojas is considered as vital essence of all the tissues
which when sufficient in quantity there is health whereas its deficiency leads to diseases. The maintenance of unctuous quality of body parts, holding body entities together, durability of body elements, maintenance of bulk of body, maintenance of sexual vigor and strength of body. It is observed that in diseases accompanied by profuse tissue loss there is also diminution of strength of ojas. Some food articles that can replenished ojas were milk, cow ghee, and butter whereas also by special Ayurvedic drugs like *ashwagandha*, *kapikachu*, *shatavari* etc.  

REFERENCES

10. Shashtri Ambikadutta. (Editors) Doshadhatumalachayavriddhi, Sushruta Samhita, Varanasi: Chaukambha Sanskrita Sansthan; Reprint 2006:60
17. Shashtri Ambikadutta. (Editors) Garbhavakrantisharira, Sushruta Samhita, Varanasi: Chaukambha Sanskrita Sansthan; Reprint 2006:26

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