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ABSTRACT

In Ayurveda, the superior most essential fraction of all bodily tissues is called ‘Ojas’. Oja is considered as an essential factor for survival of human. Overall it is responsible for the defence of human body against diseases and infirmity. Ojas is responsible for preventing contagious and communicable disease. As long as oja is in physiological status, human body remains in homeostatic condition. Any disturbance of any kind endangers life such status of oja is called ojovikruti (immunodeficiency disorder). A physician has to deal with three problems related to oja. Susrta-Samhita mentions abnormal conditions of oja. The following article “A review literature on concept of ojovikruti” is reviewed through Ayurvedic classics in integration with modern medical facts.

Keywords: ojas, ojovikruti, immunodeficiency disorder

INTRODUCTION: When etiological factors come into contact with the body they try to produce disease. The human body has the ability to develop extremely powerful specific immunity against individual invading agents such as lethal bacteria, viruses, toxins, and even foreign tissues from other animals. This is called acquired or adaptive immunity. This acquired or adaptive immunity can be correlate with Vyadhikshamatva. This Vyadhikshamatva depends on prakrut Ojabala (efficient immune system). The cells comprising immune system are lymphocytes, monocytes, macrophages, mast cells, basophills, neutrophills, eosinophills, immunoglobulins are together can be compared with apara oja. Ayurveda incorporates both the preventive and curative aspects of human ailments, promising it as a holistic science. This holistic approach of Ayurveda resembles to the entire function of Vyadhikshamatva. Acharyas promoted the use of Rasayana (Rejuvenation) to enhance ojas and vyadhikshamatva.In conditions like diabetes mellitus, immunodeficiency disorders, AIDS and malnutrition, where loss of ojas or bala is a constant feature or whenever ojodushiti (deficient immunity) occurs, people are known to be susceptible to various other diseases or recurrent infections. According to the concept of ojas or Vyadhikshamatva or Bala (immunity), the body’s resistance is of tremendous importance in the daily welfare of living beings not only for disease prevention but also for rapid recovery after disease affliction.

AIM & OBJECTIVES:
1. To Study the role of ojas in Shareera.
2. To Study the ojovikruti and to understand its role in pathology of disease.

MATERIAL AND METHODS: Different Ayurvedic classical book, modern medical book, research paper and journals were referred to understand meaning of Ojas and Ojovikruti.

Ayurvedic outlook on ojas Definition of Ojas: Acharya Charaka defines ojas as a shuddha (clear) substance having rakta varna along with ishat peeta varna and residing in hrudaya (Heart) is called ojas in shareera. Acharya Sushruta defines ojas
as Param (supreme) tejas of dhatus from rasa to shukra thus ojas is the essence of all seven dhatus (body elements i.e Lymph, Blood, Muscle, Fat, Bone, Bone Marrow, Semen). It is the seat for strength. Ojas is nothing but the Balas or strength of all the body, which is the ultimate end product of the seven Dhatus. Ashtanga Hrudaya defines ojas as it is para teja of shukranta(rasa to shukra) dhatus. Sharandhar states that ojas is the upadhatu of sukra.

Formation of ojas in the Body:
In Garbha Formation Process paka occurs, in this process two things are formed mala and sara. Mala is malarupi ojas and sara is the garbha. Ojas is derived from all the ‘Saptha Dhatus’ in other words all the Dhatus contribute to its making. Ojas is the product of the Dhatuagni vyapara(metabolism), which has the essence of all the Sapta Dhatus in it. So essentially ojas depends on Ahara (diet) for its production.

Importance of ojas: Acharya Charaka quotes as if nasha of ojas(absent or impaired immune function) takes place then nasha of purusha(body) occurs. Acharaya chakrapani comments as if a small fraction of ojas gets destroyed it will lead to death. he further relates this to para ojas which is situated in hrudaya. Ojas is included under dasha pranayatanas without ojas life cannot exist. Ashtanga Hrudaya explains as unless and until ojas in samya avastha shareera also remains in samya avastha. Acharya Kashyapa explains as if ojovruddhi takes place then shareera vruddhi takes place and shareera kshaya takes place if kshaya of ojas takes place.

Classification of ojas- 1) Para ojas 2) Apara ojas Para ojas: Ojas marks the beginning of the formation of embryo. It is the essential nourishing fluid developed from the Rasa of the embryo. It enters the heart right at the stage of the latter’s initial formation and is permanently located there, sustaining the life of the foetus. Sthana of para ojas is hrudaya. Chakrapani comments on word ishata as very less in quantity and indicative of asthabinduoa. Para oja is Asthabindu in pramana. Loss of Ojas amounts to the loss of life itself.

Apara Ojas: Apara ojas is shlaismika ojas. Apara oja is Ardhanjali in pramana. It performs the tarpana action in the entire body. it is the source of the strength to the Dhatus. Ojas permeates entire body nourishes limbs and organs. In the absence or deficiency of ojas in the body there will be wasting, decay, degeneration and destruction of the body. This statement indicates the nutritive nature of the apara ojas is preventing the decay of the body.

Ojovikruti: The pathological state of ojas is called as ojovikruti. Charaka and all other classics have described this ojovikruti as ojokshaya. No direct reference of ojovruddhi and its effect on body is available in charaka samhita also not in Sushruta samhita. In Ashtanga Sangrha explains symptoms of ojovruddhi as tushti and pushti of deha and exaltation of bala. Tushti means contentment of manas, feeling of happiness, bala means samarthytha, proper increase of these entities takes place by ojovruddhi. Increased ojas is responsible for unique growth, nourishment and promotes strength. Ojovruddhi is not vikarakari, not creating diseases as that of vatadivruddhi. Whereas Susruta has explained three modes of vitiation of ojas as thrayabala doshas. They are ojovisramasa, ojovyapat and ojokshaya(reduction of immunity or vyadhi kshamta) Even though they are explained as the types of ojo-vikruti,
practically they look like the stages of *ojokshaya*. *Ojovikruti* is nothing but group of symptoms which look like symptoms of immunodeficiency disorders or syndrome. The causes which cause depletion of any *Dhatu*, can also cause depletion in the *ojas* qualitatively and quantitatively. But exclusively some aetiology has been attributed to the condition of *ojovikruti*. The factors influencing the *ojovikruti* are as follows:

**Ahara (diet) Karana:** Alpashana (malnutrition), anashana (abstinence from food intake), pramitashana (over indulgence of food item of only one taste among six taste). Chakrapani comments on this as *eka rasabhyaasa*\(^{18}\), kshudha(hungry)\(^{19}\) are the important causes related to food.

**Vihara (daily activities) Karana:** Aatapasevana (exposure to extreme heat of sun and blows of winds), ativyayama (indulging in heavy work beyond once capacity), ativyavaya (indulging in excessive sex), atipravritti of kapha (is to be understood as atiyoga of vamana (excess vomiting), atipravritti of shonita (loss of blood due to hemorrhage, injuries, excess menstrual bleeding etc. or atipravritti by raktamokshana, siravedha, Prajagara (keeping awake in the night), Kala (chakrapani comments on kala as vardhakya (old age) and aadankala (mainly summer or hot season))\(^{18}\) are the important causes related to vihara (activities).

**Manasika (Psychological regions) Karana:** Shoka (grief), kopa, krodha (anger), chinta (worry), bhaya (phobia), Dhyana (atichintan)\(^{19}\) are the important psychological causes.

**Agantu Karana (external causes etc.):** These are the external causes like Abhigaha\(^{19}\), Bhutopaghata\(^{18}\) due to bhuta, pishacha, rakshasa etc.

Susruta has explained *Saptadhatukshaya* (reduction in body elements) is important cause of *Ojakshaya* (reduction in immunity)\(^{19}\). Madya(alcohol) by virtue of its *dasha gunas* which are opposite to *dashagunas* of *ojas* causes *ojokshaya*\(^{20}\). *Visha* (poison) is having opposite gunas of *ojas* and thus by virtue of these gunas *visha* vititate *ojas* and causes death\(^{21}\). Avidhiyukta grama dharma (bad habits) seven leads to *ojokshaya*\(^{22}\). Lavanrasa atiupayoga (salty diet) leads to *ojokshaya*\(^{23}\). Kshara (minerals) is also cause *ojokshya*\(^{24}\).

**Ojo Visramsya:** Visramsya means displacement from its normal place. Clinical features due to ojo visramsya are sandhi vishlesha (looseness of the joint or laxity in joint), gatra sadan (weakness of the body), dosha chyavana (displacement of the *doshas* from their respective seats or it can be interpreted as bhramsha, acharya Chakrapani comments that bhramsha of mala, mutra and vatadi *doshas*), Kriya Sannirodha (impairment in activities or sluggish behavior or slight impairment from normal functions of shareera, manas and vanee)\(^{25,26}\). Word cha indicates impairment in normal physiological function of *bala*. Oja mix with Rasa *Dhatu* in *Hrudyaa* and from there it circulates throughout the body via *Srotas* channel. In ojo Visramsya circulating *ojas* leaks out from tiny distributing channels as a result vital ojo may not reach certain organs or parts of the body and thus leads above symptoms of *Ojo Visramsya*.

**Ojo Vyapat:** Vyapat means *ojas* gets vitiated by dusta *doshas* and dushtya (body elements). Clinical features due to ojo vyapat are *stabdhagurugatrata* (Stiffness and heaviness in the
body), vatashopha (swelling due to vata), varnabhedaa (discolouration or loss of complexion), glani (Exhaustion), tanda (stupor or non-perceptibility of sense organs towards their vishayas), nidra (excess sleep)²⁵. Acharya Chakrapani comments as hanee of prakruta guna karmas of ojas is also seen in vyapar²⁶. In Pathological condition, ojas loses its physiological normal function and properties thus producing above symptoms of Ojovikruti: Ojas.

Ojo Kshaya: (reduction in immunity) – Kshaya means decrease in quantity. Acharya charaka has explained ojokshaya in the context of eighteen kshaya. After explaining of doshas, dhatus and malas separate description of ojokshaya is available. bibheti (sacredness or fear complex develops), durbalata (general weakness), abheekshnam dhayati (repeated worries), duschaya and durmana (afflicted status of complexion and mind), vyathitaindriyas (agitated organs or discomfort in sense organs), rukshata (dryness), kshamata (emaciation). Acharya chakrapani comments on word durmana as bala heenata of manas²⁷. Acharya Sushruta also explains clinical features of ojokshaya are murccha (fainting), mamsa kshaya (wasting of muscles), Moha (Unconsciousness), pralapa (Delirium), marana (Death)²⁵. Acharya chakrapani comments on murccha means sarvatha cheshta nasha (complete loss of consciousness)²⁸ acharya Dalhana comments on word murccha as indriyas could not function for getting their vishaya, moha means vaichittyta or state of delusion²⁸. Once the ojakshaya (reduction in oja occurs in the body, the disease fighting ability of the body gets reduced which can be compared with HIV / AIDS. Acharya Dalhana comments that abhighatadi nidans are responsible for visramsa of ojas. If vitiated dosha dhatus combines with ojas then properties of ojas change and it leads to ojovikruti: ojakshaya is quantitative loss of ojas.

Ojodushti Vikara: Ojas plays an important role in the genesis of various disorders

Rogas: Rajayakshma, Prameha, Pandu, Raktaatisara, Kshayaja kasa, kshataja Kasa, Sannipataja Jwara are the diseases in which in their later stage lead to Ojakshaya.

1. Abhinyasa Jwar (Fever) is also called as Hataujasa Jwar. This Jwar explained by Acharya Sushrutha name itself indicates that the dearranged condition of ojas. Due to loss or decrease of ojas, this condition is stated to difficult to cure. The clinical features are low body temperature, sub comatose state, loss of voice, cracked tongue, dryness of throat, suppression of stool, perspiration, maturation, hardness of chest, aversion to food, dull complexion, difficulty in breathing and delirium. Sushrutha termed this condition as ojonirodhaja jwar²⁹.

2. Rajayakshma (Tuberculosis) – In rajayakshma, the depletion of oja occurs. Charaka has enumerated the pathological sequences very clearly while explaining the samprapti of rajayakshma in charak chikitsa. Due to the obstruction of srotas, there is deficiency of nutrients to raktadi dhathus, lowered functioning of dhatwagnis and catabolic events, the food ingested, which undergoes pachana in the kostha is changed into malas, ultimately poshan of ojas lowers thus ojakshaya occurs³⁰.

3. Shosha (Malnutrition): In shosha roga, there will be severe dryness or extreme depletion of tissues leading to loss of ojas³¹.
4. Prameha (Diabetes): In case of prameha, apara or ardhanjali ojas is involved and not the para ojas because even slight reduction of para ojas leads to death. In madhumeha, inspite of reduction of apara ojas person still survives.

5. Pandu Roga (Anaemia): Due to excessive exacerbation of three doshas especially pitta afflicts dhatus as a result complexion, strength and ojas get reduced leading to development of pandu roga.

6. Udanavruta Prana: Loss of activities, oja, bala and complexion is observed in udanavruta prana.

Vyadhiksamatva and Ojovikruti - During certain conditions, or due to certain factors, even unwholesome food does not produce diseases immediately. all unwholesome food particles are not equally harmful, all doshas are not equally powerful, all persons are not capable of resisting diseases. This depends on Vyadhiksamatva(immunity) and ojobala.

The main purpose of ayurveda is the preservation of health in healthy individual and eradication of diseases which are curable. Resistance to diseases or immunity against diseases is of two kinds, one which attenuate the manifested disease and other variety prevents the manifestation of diseases.

Synonyms for Vyadhikshamatva which appears in Ayurvedic scriptures are Sleshma, Bala and Ojas. Sleshma in normal state is called Bala and Oja. Sleshma in abnormal state called ‘Mala’ (waste) and ‘Papma’ (diseases). thus ojovikruti leads to diseases formation. From above it can be conclude that ojovikruti leads to decrease vyadhikshamatva or immunity which ultimately leads to different disease formation in the body.

CONCLUSION: Prakrut ojas plays an important role in samyavastha of shareera(normal physiological function of body) ojakhaya, ojavyapat and ojovisramasa are three types of ojovikruti and these ojovikruti plays an important in pathology of disease. Vyadhikshamatva or immunity is ultimately depends on ojobala, prakrut ojo. In Ojovikruti defence mechanism of body works less efficiently, thus there is deficient or absent cellular or humoral immune functions this is characterized by group of primary and secondary immunodeficiency diseases. ojas is responsible for good health, better immunity, longevity, intelligence and thought process. For this purpose, use of different types of ojas promoting herbs have been described in ayurveda which can be immensely helpful in the management of immunodeficiency disorders. Ayurvedic Rasayana treatment (Herbal Immune Boosting treatments) corrects the Agni (the digestive fire) and there by produce best Dhatus as the Dhatawagnis (fire required to prepare best body elements) also are at their best ability, due to Rasayan therapy as high quality Dhatus are produced, the strength of these Dhatus are also at their best. Hence Ardhanjali oja (immunity) can be produced at their optimum level which corrects Ojovikruti.

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