



Review Article

A STUDY ON OJAS AND OJAKSHAYA IN ETIOPATHOGENESIS OF MADHUMEHA (DIABETES MELLITUS)

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ABSTRACT

Ojas is considered as essence of seven *Dhatus* or equivalent to *Bala* or *Sleshma*. *Ojas* can also be considered as living radiant energy present in human body. In Ayurveda literature the term *Oja* is not clearly explained by Ayurveda community. The classical Ayurveda text describes *Ojakshaya* as one of the *Ojavikara* which may be prevalent in various diseases. The pathogenesis of *Madhumeha* (Diabetes Mellitus) also describes this phenomenon. The prevalence of *Oja kshaya* can be clinically evaluated in the patients of *Madhumeha* and the same if kept in mind during treatment may arrest the further progress of the disease to complications like Diabetic Retinopathy, Neuropathy etc. In Ayurveda classics *Ojakshaya* is described in relation of *Madhumeha*. So, there will be prevalence of *Ojakshaya* in patient of *Madhumeha* (Diabetes Mellitus). Therefore, in this review article an attempt is made to understand the concept of *Oja* and *Ojakshaya* in diabetes mellitus.

KEYWORDS: *Oja Ojakshaya, Diabetes Mellitus, Madumeha.*

INTRODUCTION

Ojas in Ayurveda is considered as quintessence of all the seven *Dhatus* and represent the *Bala* or biological strength which include immune strength to.^[1] *Charka* includes *Oja* in *Dash Pranaayatan*.^[2] *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 decrease immunity or rather *Oja Kshaya*.

In Ayurveda *Oja Vikruti* is broadly classified as *Ojo Vistransa*, *Ojo Vyapat* and *Oja Kshaya*^[3]. The deficiency of *Oja*, quantitatively or qualitatively or functionally is called *Oja kshaya* which is diagnosed on the basis of symptoms. The etiological factor for *Ojo Kshaya* are *Aahara*, *Vihara*, *Mansik*, *Vyadhijanya*, *Vaidhya Pramad* etc^[4,5]. *Oja kshaya* symptom is also seen in *Grahani*^[6], *Kshatsheen*^[7], *Rajayyakskshma*^[8] etc. pathogenesis of *Madhumeha*. *Ojakshaya* is described in pathogenesis of *Madhumeha* so it is also called *Ojomeha*.

Diabetes mellitus is metabolic disorder of multiple etiologies characterized by hyper glycaemia due to impaired insulin secretion or action or both. According to WHO, in world around 420 million people are suffering from Diabetes mellitus. In India 62 million people (7.1% population) people have Diabetic mellitus. About 1.5 million deaths occur

primarily due to diabetes, 2 million from heart diseases, stroke, chronic kidney disease in which diabetes is a underline cause. So it is the 8th leading cause of death in India.^[9]

At present all the treatments available can only control the glucose level of diabetic patient but on the other hand, the immunity of patient continues to decreases due to which after some time patient suffer from Diabetic complications like Diabetic Retinopathy, Diabetic Neuropathy, Diabetic Nephropathy, so in this way maintenance of the immunity or *Ojakshaya* is an important factor to prevent the complication and proper treatment of disease^[10-12].

AIMS AND OBJECTIVES

- To compile, study and evaluate the concept of *Ojas*, *Oja Vikruti* from the available classical literature, commentaries, research works, articles on internet and available information in allied basic science.
- To study of *Oja Kshaya* in etiopathogenesis of *Madhumeha* (Diabetes mellitus).

MATERIAL AND METHODS

This article is based on a review of various Ayurveda classical literatures. Materials related to *Oja*, were collected as well as references were compiled, analysed and discussed for a thorough and

in-depth understanding of the concept of *Oja* and *Ojakshaya* in Diabetes mellitus.

Conceptual Study

Formation of Ojas: The best way to describe formation of *Ojas* is similar to the process of formation of honey. Bees collect the nectar or essence of thousands of fruits and flowers and store them into their hives for the formation of honey. Similarly, *Ojas* is also the nectar or essence and is the end product of various physiological process.^[13]

Properties of Ojas

Colour: According to Sushruta, it is *Sukla Varna* (clear white) whereas other Acharyas have mentioned three colours 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* (sweet) with slight *Kashayatva* (astringent).^[14]

Qualities of Oja

Acharya Charak has explained ten qualities of *Ojas* which are similar to milk and ghee while totally opposite to *Madya* (Alcohol) and *Visha* (poison). They are as follows - *Guru* (heavy), *Sheeta* (cold), *Mridu* (soft in nature), *Shlakashna* (smooth), *Bahalam* (which spreads into the minute channels), *Madhura* (sweet in nature), *Sthira* (stable or firm), *Prasanna* (pleasant), *Picchilam* (sticky), *Snigdha* (unctuous or oily).^[15]

Types of Ojas

According to Acharya Chakrapani there are two types of *Ojas* found in the body.

1. **Para Ojas-** Acharya Charak mentioned that *Hruduya* (heart) is dwelling place of *Para Ojas*. It is best and most important. Its measurement is *Ashta bindu* (eight drops).^[16] 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 grave diseases and instantaneous death of that person.

2. **Apara Ojas-** *Apara Ojas* is also known as *Shleshmika Ojas* as its properties are similar to that of *Shleshma (Kapha)*. *Apara Ojas* is present all over the body. According to Acharya Charak, the quantity of *Ojas* in a healthy individual is *Ardhanjali*.^[17] 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.^[18]

Dwelling Place of Ojas

The main seat of *Ojas* is heart from where it circulates in the whole body. There are two places where *Ojas* prevails.^[19,20] 1. *Para Ojas - Hridaya Sthan*

(in the heart) 2. *Apara Ojas - Sarva Sharira Vyapi* (all over the body) like ghee in milk or honey in flowers.

Characteristic Features of Ojas

Somatmaka (cool like moon), *Snigdha* (unctuous or oily), *Shukla* (white in color), *Sheeta* (cool in nature), *Sthira* (stable or firm), *Sara* (flowing or moving and liquid in nature), *Viviktam* (clear or transparent), *Mridu* (soft in nature), *Mritsnam* (slimy).^[21]

Functions of Ojas

Ojas is very useful to maintain the condition of the good health. It not only nourishes all the body constituents but also nourishes the mind. It controls or regulates all the physiological activities and immunity power of the body. In Ayurveda it is believed that life cannot exist without *Oja* in the body.

Factors Responsible for Reduction of Ojas

- *Ativyayama* - Excessive physical exercise.
- *Anashana* - Fasting for long period
- *Chinta* - Constant worry
- Consumption of food which are dry – moisture less 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
- *Rukshapan* - Drinking strong wines
- *Prajagar* - Keeping awake at nights
- Excessive elimination of *Kapha*, *Shonita*, *Shukraandmala*.
- *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^[22-24]

Ojovikriti (Abnormalities of Ojas)

Oja may get deranged or may suffer from quantity and qualitative loss. According to Sushruta *Ojovikruti* is observed in the form of these three stages chronologically viz. *Ojovisransa*, *Vyapata* and *Ojaksaya* respectively. Where the *Lakshanas* of *Vishramsas* indicate beginning of *Karmahani*, that of *Vyapad* indicate *Dosh Dushti* also that produces *Ojogunahani* and *Kshaya* indicates *Pramanatahani*. Acharya Charak also explain the symptoms of *Ojakshaya*, the three stages of *Oja Vikriti* 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 follows.

Symptoms *Ojas Visransa* (first stage)

- *Sandhi Vishlesh* (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).^[25]

Symptoms of *Ojas Vyapad* (second stage)

- *Stabha Gurugatrata-* (Stiffness and feeling 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) ^[26]

Symptoms of *Ojas Kshaya* (third stage)

A. According to Sushruta Samhita

- *Murchha* (unconsciousness or fainting)
- *Mansakshaya* (decrease of muscles)
- *Moha* (mental disturbance specially in judgment)
- *Pralap* (delirium)
- *Mriyu* (death) ^[27]

B. According to Charak samhita

- *Bibheti* (person is constantly suffer from fear 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* (bad mentation or feeble mental stamina)
- *Ruksha* (dryness or roughness)
- *Shama* (skin becomes black)
- *Kashya* (Emaciation of the body).^[28]

Ojakshaya and Pathogenesis of *Madhumeha* (Diabetes Mellitus)

When physiological *Doshas* are not working normally then *Doshas* gets vitiated. So, *Vata* and *Kapha* abnormalities are raised and *Pitta* totally destroys their own work. Due to this, *Oja* easily gets vitiated. And it leads to destruction of normal activities of human being. The *Oja* being similar to that of *Kapha* the diseases involving *Ojadushti* lead to chronicity and are difficult to treat. In *Rajakshama*,

Kshatakshin, there is *Kshaya* of *Rasa Oja* in *Pandu*, there is *Kshaya* of *Raktauoja*, in alcoholic patients there is *Kshaya* of qualities of *Oja*. In *Madhumeha* there is *Kshaya* of *Aparoja* qualitatively and quantitatively.

In Ayurveda, *Madhumeha* is explained as one of the type of *Prameha* where the patient passes honey like sweet urine. In Ayurveda it is described under *Vataja Prameha* which is also known as *Ojomeha* or *Kshaudrameha*. There is an excessive increase in *Kapha*, *Pitta*, *Medas* (adipose tissue) and *Mamsa* (muscular tissue) in the case of those who take in excess, heavy unctuous food and food having sour and saline taste, rice from newly harvested crop and fresh wine. Those who sleep (too much), and have sedentary habits, those who have given up physical & mental exercises and also those who do not adopt elimination therapies. The path of *Vata* is obstructed thereby and so *Vata* together with the *Ojas* come down to reach the *Basti* (urinary bladder including kidneys[]), causing on obstinate type of disease called *Madhumeha* (Diabetes Mellitus)

DISCUSSION

In Ayurveda, *Ojas* has been considered vital in the defense mechanism of the body. In conditions like diabetes mellitus and malnutrition, where loss of *Ojas* is a constant feature, people are known to be susceptible to various other interrelated and degenerative diseases or recurrent infections. In this changing scenario it is high time to study concept of *Ojas* in its totality for this purpose available Ayurveda literature on concept of *Ojas*, study of specific diseases involving *Ojas* in their pathophysiology, study of effect of treatment procedures used in these diseases on *Ojas* and utility of *Ojas* augmentation in treatment of these diseases are few aspects which are needed to be studied. This will not only help to understand concept of *Ojas* but may also improve chances of better treatment options for managing these diseases. Role of *Ojas* in maintaining healthy status as well as positive health is also one of the important aspects in prophylaxis of diseases.

For understanding diseases and the intricate pathology, relation between *Karya* and *Karanarupi* disease and to prevent diseases also understanding of *Ojas* plays a vital role. This may prove beneficial to understand possible mode of action of drugs/ formulations used for augmentation of *Ojas*.

CONCLUSION

Ojas is considered as vital essence of all the seven tissues which when sufficient in quantity there is health whereas its deficiency leads to diseases. The entire metabolic activities occurring in the human body throughout the lifetime are primarily dependent on *Oja*. *Ojakshaya* is seen in the

etiopathogenesis of diabetes mellitus mainly in diabetes complications so the treatment should be based on increasing the *Oja* or immunity along with controlling glucose level of the patients.

REFERENCES

1. Sushruta Samhita with Nibandhasangraha commentary by Dalhana and Nyayachadrika panjika by gayadadsa, edited by jadavji trikamji Acharya, reprint 2014, Varanasi, chaukhambha surbharti prakashan, sutrasthan, 15th adhyaya, verse 19th, page 71.
2. Charak Samhita of Agnivesh elaborated by Charak and Dridhabala, Charaka Samhita with Ayurveda Dipika commentary by Charakpanidatta, edited by Jadavji trikamji acharyas, reprinted 2014, New delhi, Chaukhambha Publications, sutrasthan, adhayaya, 29th verse 3rd, page 181.
3. Sushruta Samhita with Nibandhasangraha commentary by Dalhana and Nyayachadrika panjika by Gayadadsa, edited by Jadavji trikamji Acharya, reprint 2014, Varanasi, Chaukhambha surbharti prakashan, Sutrasthan, adhyaya 15th, verse 25th, 26th and 27th, page 71.
4. Sushruta Samhita with Nibandhasangraha commentary by Dalhana and Nyayachadrika Panjika by Gayadadsa, edited by Jadavji trikamji Acharya, reprint 2014, Varanasi, Chaukhambha surbharti prakashan, Sutrasthan, adhyaya 15th, verse 23rd, page 71.
5. Sushruta Samhita with Nibandhasangraha commentary by Dalhana and Nyayachadrika panjika by Gayadadsa, edited by Jadavji trikamji Acharya, reprint 2014, Varanasi, Chaukhambha Surbharti Prakashan, Sutrasthan, Adhyaya 15th verse 77th, page 103.
6. Charak Samhita of Agnivesh elaborated by Charak & Dridhabala, Charaka Samhita with Ayurveda dipika commentary by Chakarpanidatta, edited by Jadavji trikamji Acharya, reprint 2014, New delhi, Chaukhambha Publications, Chikatasthan adhayaya 15th, verse 3rd and 5th, page 512.
7. Charak Samhita of Agnivesh elaborated by Charak & Dridhabala, Charaka Samhita with Ayurveda Dipika commentary by chakarpanidatta, edited by Jadavji trikamji Acharya, reprint 2014, New delhi, Chaukhambha Publications, Chikatasthan adhayaya 11th, verse 11th page 478.
8. Charak Samhita of agnivesh elaborated by Charak & Dridhabala, Charaka Samhita with Ayurveda dipika commentary by Chakarpanidatta, edited by Jadavji trikamji Acharya, reprint 2014, new delhi, Chaukhambha Publications, Chikatasthan adhayaya 8th, Verse 10th, 24th, page 459 and 460.
9. Charaka Samhita of Agnivesh elaborated by Charak & Dridhabala, Charaka Samhita Ayurveda dipika commentary by chakarpanidatta, edited by jadavji trikamji Acharya, reprint 2014, new delhi, Chaukhambha Publications, Sutrasthan adhayaya 17th, verse 78th, 79th, 80th, page 104.
10. <https://www.who.int/news-room/fact-sheets/detail/diabetes>
11. Chakrapani teeka on Charak Samhita of agnivesh elaborated by Charak & Dridhabala, Charaka Samhita with Ayurveda dipika commentary by chakarpanidatta, edited by Jadavji trikamji Acharya, reprint 2014, New delhi, Chaukhambha Publications, Sutrasthan adhayaya 17th, verse 74th, page 103.
12. Charaka Samhita of agnivesh elaborated by Caraka & Dridhabala, Charaka Samhita with Ayurveda dipika commentary by Chakarpanidatta, edited by Jadavji trikamji Acharya, reprint 2014, New delhi, Chaukhambha Publications, Sutrasthan adhayaya 28th, verse., page 178.
13. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 17, Verse 75/1, Chaukhamba Surbharti Prakashan; 2007. p. 353.
14. Charak Samhita with Ayurveda Deepika Commentary, edited by Jadavji Trikamji Acharya, Rashitriya Sanskrit Samsthana, New Delhi, India, Reprint Ed. 2006. Page Number – 103.
15. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 30, Verse 7, Chaukhamba Surbharti Prakashan; 2007. p. 560
16. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 30, Verse 7, Chaukhamba Surbharti Prakashan; 2007. p. 560.
17. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 30, Verse 7, Chaukhamba Surbharti Prakashan; 2007. p. 560
18. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 30, Verse 7, Chaukhamba Surbharti Prakashan; 2007. p. 560
19. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 17, Verse 74, Chaukhamba Surbharti Prakashan; 2007. p. 35.

20. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 30, Verse 7, Chaukhamba Surbharti Prakashan; 2007. p. 560.
21. Sushruta Samhita edited by Kaviraj Ambikadutta Shastri, Sutra Sthana, chapter 15, Verse No. 26. Chaukhamba Sanskrit Sansthan, Varanasi; 2007. p. 61.
22. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 17, Verse 76-77, Chaukhamba Surbharti Prakashan; 2007. p. 354.
23. Sushruta Samhita edited by Kaviraj Ambikadutta Shastri, Sutra Sthana, chapter 15, Verse No. 28. Chaukhamba Sanskrit Sansthan, Varanasi; 2007. p. 61.
24. Ashtanga Hridaya, with Vidyotini Hindi commentary of Kaviraj Atrideva Gupta, Sutra Sthana, Chapter 11, Verse No. 39, Chaukhambha Prakashan, Varanasi; 2009. p. 167.
25. Sushruta Samhita edited by Kaviraj Ambikadutta Shastri, Sutra Sthana, chapter 15, Verse No. 30. Chaukhamba Sanskrit Sansthan, Varanasi; 2007. p. 61.
26. Sushruta Samhita edited by Kaviraj Ambikadutta Shastri, Sutra Sthana, Chapter 15, Verse No. 31. Chaukhamba Sanskrit Sansthan, Varanasi; 2007. p. 62.
27. Sushruta Samhita edited by Kaviraj Ambikadutta Shastri, Sutra Sthana, Chapter 15, Verse No. 29. Chaukhamba Sanskrit Sansthan, Varanasi; 2007. p. 61.
28. Charak Samhita, with Charak Chandrika Hindi commentary, by Dr Brahmanand Tripathi and Dr Ganga Sahay Pandey, Sutra Sthana Chapter 17, Verse 73, Chaukhamba Surbharti Prakashan; 2007. p. 352.

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