

ROLE OF AAHARA AND VIHARA IN RELATION TO HEALTH W.S.R TO MANAGEMENT OF MADHUMEHA (DIABETES MELLITUS)

Vd. Amruta Vedpathak^{1*}, Dr. D. T. Kodape², Dr. R. S. Dhimdhome³ and
Dr. A. K. Pattar⁴

^{1*}PG Scholar, ²Associate Professor, ³Professor and HOD, Dept. Kriya Sharir, Govt. Ayurved College, Osmanabad, Maharashtra, India.

⁴ PG Scholar of Swasthawrita Dept. Shri J. G. Co-Operative Socity Ayurvedic Medical College Ghataprbha, Belgaon, Karnataka, India.

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*Corresponding Author

Vd. Amruta Vedpathak

PG Scholar, Dept. Kriya
Sharir, Govt. Ayurved
College, Osmanabad,
Maharashtra, India.

ABSTRACT

Ayurveda gives special value to preventive and promotive aspect of health than curative. Ayurveda explains in brief about concept of *Aahara* (Diet) and *Vihara* (Life style). But now days this all knowledge remains only in books no one follow it properly. That's why we see decrease in quality of life, health status and rise in all life style disorders. Diabetes mellitus is now days commonly seen life style disorder. **Aim:** To evaluate the effect of dietary intervention and life style modification in *Madhumeha* (Diabetes mellitus). **Material and Methods:** Thirty patients of *Madhumeha* are randomly selected from Govt. Hospital, Osmanabad for present study. Dietary interventions

and life style modifications schedule was prepared based on Ayurveda principles and advised the patients to follow this regimen for one month. WHOQOL-BREF form was given to patients before and after dietary intervention and life style modifications and analyzed the observation. **Observation and Result:** we have observed the improvement in quality of life and health status statistical analysis shows that the improvement is highly significant. **Conclusion:** Dietary interventions and life style modifications are the two important tools to control newly diagnosed T2DM patients and in patients who are on antidiabetic medication but not properly controlled.

KEYWORDS: *Aahar, Vihar, Madhumeha*, Lifestyle, Ayurveda.

INTRODUCTION

The present day living style had drawn a diverse situation. Where on one hand the average life expectancy has increased and the other hand; the state of health is facing a new question every day in the form of either a new type of disease or some unknown problem endangering the Human Life. Thus, today's scenario of health is something like that Man has added Years to his life but is somehow missing life in those Years.

According to a report of WHO on Primary Health Care, stating that there is an “inability of health services.... health system is not getting the stated demands & changing needs”^[1] Whenever the aspect of Health in total is to be considered, it has to be looked upon from all nook and corners and including the diet.

Millions of people are yearly dying due to unhealthy conditions. Even with the advent of excellent techniques and astonishing advancement in medical science and technology, the humanity is left with innumerable health problems and hazards. Most of the diseases or disease conditions have direct or indirect link with the type of food consumed, food habits and/ or life style. According to a survey about the role of food/ food habits in disease production, it has been reported that “80% of the top ten killing diseases of the world are due to wrong food habits”.^[2] Reviewing the current practice of (Diet) & including the mode of food preparation, raw materials, food combinations and food timings etc., are really in a state where it is very essential to focus if the tranquility.

He who indulges daily in healthy food (*Aahara*) & lifestyle activities (*Vihara*), who discriminates between good & bad and acts accordingly, who is not attached too much to the worldly affairs, who develops the habit of charity, considering all as equal, is truthful, pardoning and keeping company of good persons becomes free from disease. [*Swastha*].^[3]

The body and disease both is product of food.^[4] The distinction of happiness and sorrow results from the distinction of wholesome and unwholesome diet. But now days this all knowledge remains only in books no one follow it properly. That's why we see decrease in quality of life, health status and rise in all life style disorders. Diabetes mellitus is now days commonly seen life style disorder.

Taking these facts into consideration, the present study titled as Role of *Aahara* and *Vihara* In Relation To Health W.S.R To Management Of *Madhumeha* (Diabetes Mellitus) has been Undertaken to partially fulfill the lacuna in this area.

Aim of Study

1. To evaluate the dietary intervention and life style modification in *madhumeha*.

MATERIALS AND METHODS

Materials

- Classical sign and symptoms of *Prameha*.
- Investigations according to Ayurveda and Modern parameters.

Methods

Patients who had classical signs and symptoms of *Prameha* were selected for the study from O.P.D. and I.P.D. of our Hospital and *Madhumeha* free checkup camp was arranged at our hospital. Age group 30 years to 70 years male and female patients were selected. The known cases of *Prameha* patients were subjected for the study.

Place of Study

Patients reported in the OPD and IPD of our Hospital were carefully selected according to the diagnostic, inclusive criteria and WHOQOL-BREF Questionnaire form was given to fill-up for determines the quality of life and health status. Then selected *Aahara* (Diet) and *Vihara* (Physical activity) was explained to DM patients and said them do it for one month. After one month again WHOQOL-BREF Questionnaire form given to patients for assessment of quality of life and health status was going to increased or not.

Consent

A well informed written consent of all patients included in my study was taken before the study.

Sample size – 30

Inclusion Criteria

1. Patients of uncontrolled blood sugar with positive urine sugar etc. of either sex will be selected on the basis of classical signs and symptoms of *Madhumeha*.
2. Patient between ages 30 - 70 years.

3. Laboratory Investigations have been done before the treatment to rule out any other associated pathology. Biochemical tests of Urine and blood and any other tests have been conducted if required.

b) Exclusion Criteria

1. Patients with juvenile diabetes.
2. Age of patient less than 30 years and more than 65 years.
3. Emergency cases in diabetes mellitus.
4. Patients having IDDM and receiving insulin (type 1)
5. Excessive blood glucose (FBS) > 300 mg/dl.
6. Chronic complications [micro vascular & Macro vascular] will be discarded.

Table No. 1: Advised Aahara (diet) to all patients for one month.^[5]

Group	Name of items
Grains	<i>Yava</i> (barley) - <i>Hordeum vulgare</i> , <i>Godhuma</i> (Wheat) - <i>Triticum sativum</i> , <i>Shashtika Shali</i> (rice) - <i>Oryza sativa</i> , <i>Kodrava</i> (grain variety) - <i>Paspalum Scrobiculatum</i> , <i>Uddalaka</i> , <i>Shyamaka</i> , <i>Bajara</i> .
Pulses	<i>Chanaka</i> (bengal gram) - <i>Cicerarietinum</i> , <i>Adhaki</i> (toor dal) - <i>Cajanus cajan</i> , <i>Mudga</i> (green gram) - <i>Phaseolus aureus</i> , <i>Kulattha</i> (Horse gram) - <i>Dolichos biflorus</i> .
Vegetables (Bitter and astringent)	<i>Methika</i> (fenugreek)- <i>Trigonella foenum</i> , <i>Patola</i> (pointed gourd) - <i>Trisanthus dioica</i> , <i>Karvellaka</i> (bitter gourd) - <i>Momordica charantia</i> , <i>Tanduleyaka</i> (Choulayee) - <i>Amaranthus spinosus</i> , <i>Vastukam</i> (Bathuva), <i>Shobhanjana</i> (drum stick)- <i>Moringa oleifera</i> , <i>Karkotaka</i> – <i>Momordica dioica</i> , <i>Rasona</i> (garlic) - <i>Alium sativum</i> , <i>Kadali</i> (raw banana)- <i>Musa paradisiaca</i> .
Fruits	<i>Jambu</i> (Jamun)- <i>Eugenia jambolana</i> , <i>Talaphala</i> - <i>Borassus flabellifer</i> , <i>Amalaki</i> (goose berry) - <i>Emblica officinalis</i> , <i>Kapittha</i> (monkey fruit) - <i>Limonea acidissima</i> , <i>Dadima</i> (pomegranate) – <i>Punica granatum</i> , <i>Tinduka</i> – <i>Disospyros embrayoptesis</i> .
Seeds	<i>Methika</i> , <i>Kamala</i> - <i>Nelumbo nucifera</i> , <i>Utpala</i> – <i>Nymphoea stellate</i> ,
Flesh (Fat free) meat forest animals or birds	<i>Harina</i> (deer flesh), <i>Shashaka</i> (rabbit), Birds likes – <i>Kapota</i> (pigeon), <i>Titira</i> , <i>Lavaka</i> .
Other natural products	<i>Madhu</i> (honey), <i>Madhudaka</i> (honey mixed with water)
Oils	<i>Nikumba</i> (Danti- <i>Baliospermum montanum</i>), <i>Ingudi</i> (<i>Balanitis egyptica</i>), <i>Atasi</i> (<i>Linum usitatisimum</i>), <i>Sarshapa</i> (Mustard)
Other food articles and spices	<i>Dhani</i> (popcorn of jowar), <i>Laja/Murmura</i> (puffed rice), <i>Maricha</i> – (<i>Piper nigrum</i>), <i>Saindhava</i> – (rock salt), <i>Hingu</i> - (<i>asafoetida</i>), <i>Haridra</i> - (<i>Turmeric</i>), <i>Ardraka</i> - (<i>Ginger</i>)
Water	<i>Ushnodak</i> (hot water)

- a. Eat only when you hungry.
- b. Eat in clam and comfortable place.

- c. Eat the right quantity.
- d. Eat freshly prepared foods at every meal.
- e. Eat quality food.
- f. Do not eat incompatible food items together.
- g. Be present when you eat.
- h. Don't eat so fast or slow.
- i. Eat at regular time.
- j. Don't drink more water just before and after the meal.

Advised *Vihara* (Daily routine) to all patients for one month^[6]

- a. Wake up early in the morning.
- b. Clean the face, mouth, eyes and properly do evacuation.
- c. Apply oil to head and body.(*abhyanga*)
- d. *Udvartana* (Rubbing of body) with *Triphala* or *yava churna*
- e. Take bath with warm water.

Criteria for Assessment Of Result

- HbA1c
- Urine Sugar
- WHOQOL-BREF Questionnaire standard form is used to check the quality of life and health status of patient.^[7]

OBSERVATION AND RESULT

Food is an important substance to cause complete health of living beings. Increase, decrease and homeostasis of *doshas* depend on the influence of various tastes. From present clinical study, after one follow up we have observed the significant improvement in HbA1c, Urine sugar, and WHOQOL-BREF Form.

The present study shows, that before dietary intervention and life style modification HbA1c ranged from 6.9% to 16% with a mean of 9.85 and SD of 2.98 and after dietary intervention and life style modification HbA1c ranged from 5.8% to 10% with a mean 7.39 and SD of 1.27. Statistically after dietary intervention and life style modification HbA1c average value is significantly low than before dietary intervention and life style modification. ($t=4.08$, $p<0.01$). (Table No. 2).

The present study shows, that before dietary intervention and life style modification Urine sugar was present in 90% (27 in no.) patients and absent in 10% (3 in no.) patients. After dietary intervention and life style modification Urine sugar was present in only 40% (12 in no.) patients and absent in 60% (18 in no.) patients. (Table No. 3).

The present study shows, that before dietary intervention and life style modification response to the WHOQOL-BREF Form was positive in only 16.66% (5 in no.) patients and negative in 83.33% (25 in no.) patients. After dietary intervention and life style modification response to the WHOQOL-BREF Form was significantly positive in 80% (24 in no.) patients and negative in 20% (6 in no.) patients. (Table No. 4).

Table No 2: Comparison of Average HbA1c values of patients before and after dietary intervention and life style modification.

HbA1c	Before dietary intervention and life style modification	After dietary intervention and life style modification
Mean	9.85	7.39
SD	2.98	1.26

Table No 3: Comparison of Urine sugar of patients before and after dietary intervention and life style modification.

Urine Sugar	Before dietary intervention and life style modification (No and % of patients)	After dietary intervention and life style modification (No and % of patients)
Present	27(90%)	12(40%)
Absent	3(10%)	18(60%)

Table No 4: Comparison of WHOQOL-BREF Form of patients before and after dietary intervention and life style modification.

WHOQOL-BREF Form Response	Before dietary intervention and life style modification (No and % of patients)	After dietary intervention and life style modification (No and % of patients)
Positive	5 (16.66%)	24(80%)
Negative	25(83.33%)	6(20%)

DISCUSSION

Nowadays with the rush and fast life People are not having enough time to develop & live a proper lifestyle and eat a proper diet. With this lot of lifestyle diseases are coming up and diabetes mellitus is one of them. DM is now a world threat and the perspective to visualize its management has shifted from holistic to drug oriented with the advent of time from ancient to

modern. Therefore, till few years before the revival of the holistic inclusion, the lifestyle and diet were not being much focused upon its management. In order to socially project the wholesome treatment and not only the approach towards the drugs, the present work aimed to discuss about the *Ahara & Vihara* with the view point of Ayurveda in *Madhumeha* disease and let the world understand that Lifestyle and diet are as much important as medicine in disease management and gaining good health. In these work patients quality of life is examined before and after the dietary intervention and life style modification.

Analysis and modes of action on Aharaja Pathya

They have the properties like *lekhana* (scraping), *vatahar*, *medagni vardhana*, *balya* etc. In *madhumeha bahu* and *abaddha medas* is one of the major factors contributing for *samprapti*. Hence the *dravya* which cause *medagni vridhi* will surely help in overcoming *bahu* and *abddha medas*. High fiber diet– Delay of gastric emptying. Delay absorption due to increases viscosity, relives constipation. *Thikta Shaka- Patola, Methika, Hingu, Hridra, Krvellaka, Sarshapa* etc.

Since in *madhumeha* it is the *shithilatha* of the *deha* which provokes the *samprapthi*, *thikta shaka* does the *sthirikaran* of *deha* and also does the *shoshana* of *dushya* in *Prameha*.

Analysis and Modes of action on Viharaja Pathya

Abhyanga- *Tila taila* get absorbed by skin. *Aacharya Dhalana* explain that when *abhyanga dravya* reaches to particular dhatu then it subsides the diseases of that Particular dhatu. *Medha dhatu* is main *dushya* in *prameha* and *tila taila* have property of *lakhana* (scraping) that's why *abhyanga* reduces excess *meda*.

Udvartana- *Dosha vishesha-kapha shaman*, *Dushya vishesha-Pravilayana medas* (liquification), *Sharirsthirikarana*.

The process of *udvartana* enhances circulation to skeletal muscle, does lysis of adipose tissue.

Vyayama- Redistribution of blood to active muscles. Lipolysis of adipose tissue occurs, profound reduction of local vascular resistance increase in capillary bed.

CONCLUSION

The study entitled “**ROLE OF AAHARA AND VIHARA IN RELATION TO HEALTH W. S. R TO MANAGEMENT OF MADHUMEHA (DIABETES MELLITUS)**” was undertaken for study. Following conclusion are drawn.

- Mostly Diabetes affects the people living a sedentary life and positive family history plays a major role in its development. So, Diabetes is a disease of people living a sedentary life with unhealthy lifestyle. So, potential to prevent diabetes by life style modification is considered being of best and easy method. Life style modification mainly focused on the increased physical activity and dietary intervention. It is considered as the comprehensive approach to prevent and treat Diabetes.

Ayurveda consider *nidana parivarjana* is main line of treatment and it is even applicable in case of *prameha*.

- Proper *aahara* and *vihara* are adequate to control the newly diagnosed *Madhumeha* patients. These tools also helpful for glycemic control in patients who are on anti-diabetic medication but not properly controlled.
- Dietary interventions and life style modifications improved glycemic control, insulin sensitivity and cardiovascular fitness. Hence, reduction of plasma glucose level, absence of sugar in urine and positive response to WHOQOL-BREF Form was observed in our study.

These all indicates that dietary interventions and life style modifications are important tools for the management of *Madhumeha* (T2DM).

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