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Effects of *Yogasanas* in Prevention of *Madhumeha* - A Clinical Study

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ABSTRACT

Ayurveda is an eternal science with foremost motive to maintain the health of healthy i.e. prevention of diseases and then management of the disease. *Madhumeha* is a disease which was well known from ancient time to present and shows similar pattern of occurrence and management as well. Diabetes mellitus specifically type 2 (NIDDM) is spreading worldwide and India considered as 'Diabetic Capital' bring concern on its prevention. Concept of prevention was given in *Ayurveda* by following *Pathya* and physical exercise (*Vyayama*) in *Prameha*, which bring focus towards *Yogasana*. Being a disease of *Kapha* dominance in its initial stage, to manage that *Yogasana* which bring *Dridhikarna* (compactness) of *Abadha Kapha* along with increase in *Agni* (metabolism), reduction of *Meda* along with psychological benefits. Taking that, in concern the topic "To Study the effect of *Yogasana* in Prevention of *Madhumeha* W.S.R. NIDDM" was selected for the study.

KEYWORDS

Madhumeha, Prevention, Type 2 Diabetes, NIDDM, Yogasana, Pathya



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INTRODUCTION

Ayurveda is an eternal science to provide health and longevity, with foremost motive to maintain health of healthy i.e. prevention of diseases and then management of diseases. *Acharya Charaka* described sequence and reason for occurrence of diseases on mythological description of *DakshaYagya* in *NidanaSthana*. *Madhumeha* or *Prameha* is mentioned as a result of intake of excessive *Ghee* (*HaviPaan*) which means heavy food.¹ Diseases are also known as *Dukha*. *Patanjali* had said any pain which can come in future is the most painful and should be abandoned. *HeyamDukham Anagatam*², So one should focus on prevention of the diseases than on management. Mainly *Kapha Dosha* is focused that may be in causes or may in management, it is due the reason that initially all *Prameha* are *Kapha* dominated later other *Doshas*³. In modern perspective it (*Madhumeha*) can be correlated with Diabetes Mellitus due to various similarities. In *Ayurvedic* classics there is division of diseases as their *Purvarupa* which means sign and symptoms before full-fledged disease as similar given for *Madhumeha*. Along with it, it is said that Pre diabetes is the stage from which the condition of Diabetes can

be revert similarly if management is done at the stage of *Purvarupa*.

Acharya Charaka in *Chikitsa Sthana* said that if one do continuously *Vyayama* and take non Oily food etc the person can never be affected by *Prameha*, thus the diseases can be prevented⁴. *Vyayama* is said to best for *Sthaulya Apakarshana*⁵. *Yogasana* are the best alternative of *Vyayama*, It is said in *Hathayoga* that by performing *Aasana* one get lightness in body and working efficiency increases and the person become diseases free⁶.

Though disease is *Tridosha* but consideration is of *Kapha Dosha* and main emphasis on *Medovridhi* and *Medodhatwagni*, so to disintegrate that *Aptarpana/ SthaulyaApakarshana* is needed in consideration i.e. *Yogasana* were considered along with *Pathya*. *Yogasana* - *Mandukasana*, *Suptavajrasana*, *Bhujangasana*, *Halasana*, *Gomukhasana*, *Ardhamatsyendrasana*, to maintain equilibrium in *Doshas*, manage *Dooshyas*, increase insulin sensitivity & utilization of glucose in extremities, stimulation of pancreas and harmonization of metabolism. *Pathyaahaar* selected which enhance metabolism (regulate Agni), helpful in the condition.

Ethical Committee Approval Number
753/RDSAC & H/16



MATERIALS AND METHODS

Chart for Pathya Apathya – A well formed, printed chart given to the individuals indicating Pathya and Apathya i.e. Prameha Purvarupa/ Pre diabetic condition.

A structured case proforma - To elicit information on possible risk like dietary habits, socio – demographic data (age, sex, religion, education, work status etc), family history, symptoms, lifestyle etc.

Sample/Subject – Total 60 individual as per inclusion criteria were taken and randomly divided into two groups.

Method

To decide duration of the performing *Aasana* a pilot study was done on 5 individuals, it comes that in pre procedure i.e. warm up or relaxation of muscles it takes around 2 minutes. After that in performing *Aasana* it takes on average 22 minutes and as post procedure relaxation with deep breathing 5 minutes.

Total duration of process was 29-30 minutes.

Study design

Clinical study denotes the effects of the therapy on human beings, taking into consideration the present study was planned to evaluate the effect of *Yogasanas* in prevention of Madhumeha (NIDDM)

Selection of patients – It was a clinical study of 60 patients of Pre diabetes (borderline) which were selected as per *Purvarupa* of *Prameha* explained in *Charaka Nidana* 4/47 and fasting blood sugar 101– 125 mg/dl (as per WHO and ADA) and age group of 20-40 years, irrespective of gender or religion.

Grouping - 60 individuals were selected for the study, randomly divided in two groups, 30 in each group, were assessed by using both subjective and objective parameters before and during and end of the management/ intervention i.e. 0, 15th day, 30th day, 45th day.

Group A – Including 30 patients given *Pathyaapathya* indication and a group of *Yogasanas* were performed by individuals.

Group B (Control) – It includes 30 patients and kept as control group to see the effect of *Yogasanas*. *Pathyaapathya* indication was given to follow during study duration.

Duration of the study – 1½ month (45days)

Subjective Criteria –

Symptoms were chosen as per given in ancient classics and then categorized according to severity as grade 0,1,2,3

These are:-



Karapadyosuptata (Numbness in Extremities), **Pipasa**(Increase in Thirst), **Nidra** (Increase in Sleep duration), **Mukhatalukanthasosha** (Dryness in mouth), **Aalasya** (Laziness/General Debility), **Malamkaye**(stickiness/Oiliness in body), **Tandra**

(Drowsiness), **Vistrasharigandha** (Bad Odor).

Objective Criteria :-

Fasting Blood Sugar – 101-125 mg/dl

RESULTS AND DISCUSSION

Effect of Therapy on Chief Complaints:

Table 1 Effect of therapy on *Karapadyosuptata*

Group	Mean score		d	% relief	SD±	SE±	t -value	P	S
	BT	AT							
A (n=30)	2.00	0.40	1.60	80	0.9685	0.1768	9.049	<0.001	Hs
B (n = 30)	1.967	0.833	1.133	67.62	0.6814	0.1244	9.109	<0.001	Hs

Table 2 Effect of therapy on *Pipasa*

Group	Mean score		d	% relief	SD±	SE±	t -value	P	S
	BT	AT							
A (n =30)	1.333	0.1667	1.167	87.55	0.6477	0.1183	9.866	<0.001	Hs
B (n = 30)	1.367	0.333	1.033	75.57	0.6687	0.1221	8.464	<0.001	Hs

Table 3 Effect of therapy on *Nidra*

Group	Mean score		d	% relief	SD±	SE±	t -value	P	S
	BT	AT							
A (n =30)	1.367	0.0667	1.300	94.89	0.8769	0.1601	8.120	<0.001	Hs
B (n = 30)	1.100	0.2607	0.833	75.75	0.4611	0.0841	9.898	<0.001	Hs

Table 4 Effect of therapy on *Mukhatalukanthasosha*:

Group	Mean score		d	% relief	SD±	SE±	t -value	P	S
	BT	AT							
A (n =30)	1.933	0.200	1.733	89.65	0.6915	0.1262	13.730	<0.001	Hs
B (n = 30)	1.767	0.2667	1.500	84.89	0.8200	0.1497	10.019	<0.001	Hs

Table 5 Effect of therapy on *Aalasya*

Group	Mean score		D	% relief	SD±	SE±	t -value	P	S
	BT	AT							
A (n =30)	1.733	0.333	1.400	80.78	1.070	0.1953	7.167	<0.001	Hs
B (n = 30)	1.567	0.833	0.733	46.79	0.6397	0.1168	6.279	<0.001	Hs

Table 6 Effect of therapy on *Malamkaye*

Group	Mean score		d	% relief	SD±	SE±	t -value	P	S
	BT	AT							
A (n =30)	0.267	0.167	0.100	37.45	0.3051	0.055	1.795	>0.05	Is
B (n = 30)	0.700	0.600	0.100	14.28	0.4026	0.0735	1.361	>0.05	Is

Table 7 Effect of therapy on *Tandra*

Group	Mean score		D	% relief	SD±	SE±	t -value	P	S
	BT	AT							



A (n=30)	1.800	0.333	1.467	81.5	0.8193	0.1496	9.805	<0.001	Hs
B (n=30)	1.933	0.567	1.367	70.71	0.6149	0.1123	12.173	<0.001	Hs

Table 8 Effect of therapy on *Sharirvistragandhi*

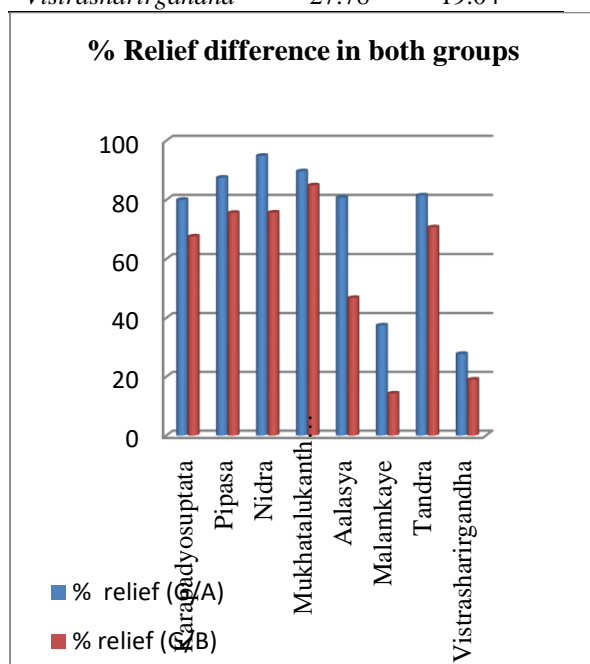
Group	Mean score		D	% relief	SD±	SE±	t-value	P	S
	BT	AT							
A (n=30)	0.600	0.433	0167	27.78	0.3790	0.0690	2.408	<0.05	S
B (n=30)	0.700	0.567	0.133	19.04	0.3457	0.0631	2.112	<0.05	S

Table 9 Effect of therapy on FBS (Fasting blood sugar)

Group	Mean score		d	% relief	SD±	SE±	t-value	P	S
	BT	AT							
A (n=30)	118.77	91.80	26.967	22.705	7.828	1.429	18.869	<0.001	Hs
B (n=30)	115.93	106.47	9.467	8.166	7.505	1.370	6.909	<0.001	Hs

Table 10 Percentage relief difference in subjective parameters in both groups

Parameter	% relief (G/A)	% relief (G/B)
<i>Karapadyosuptata</i>	80	67.62
<i>Pipasa</i>	87.5	75.6
<i>Nidra</i>	94.9	75.7
<i>Mukhatalukanthasosha</i>	89.65	84.9
<i>Aalasya</i>	80.8	46.8
<i>Malamkaye</i>	37.45	14.28
<i>Tandra</i>	81.5	70.71
<i>Vistrasharirgandha</i>	27.78	19.04

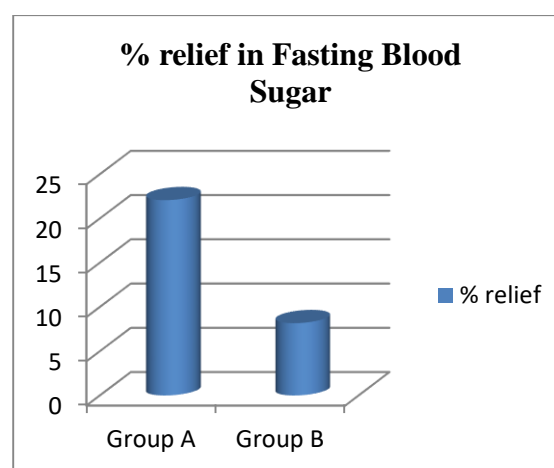


Graph.1 Percentage relief difference in subjective parameters in both groups

Table 11 Comparison of effect on Fasting Blood Sugar in both groups

Fasting Blood Sugar	% relief
Group A	22.07
Group B	8.17

Fasting Blood Sugar was reduced by 22.07% in group A and in group B it was reduced by 8.166%.



Graph 2 Comparison of effect on Fasting Blood Sugar in both groups

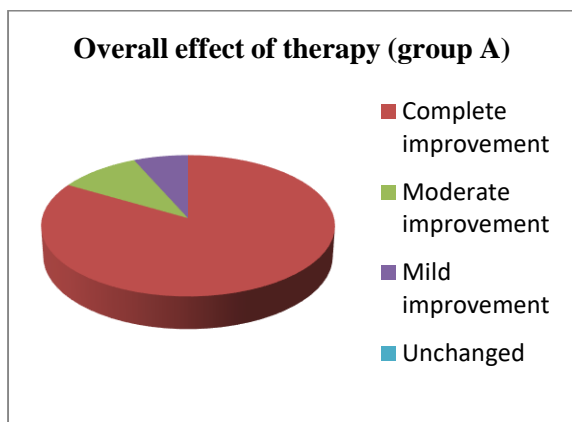
Table 12 Assessment criteria of improvement

Complete improvement	>75 % relief in sign and symptoms
Moderate improvement	50-74% relief in sign and symptoms
Mild improvement	25-49% relief in sign and symptoms
Unchanged	No change in sign and symptoms (<25%)

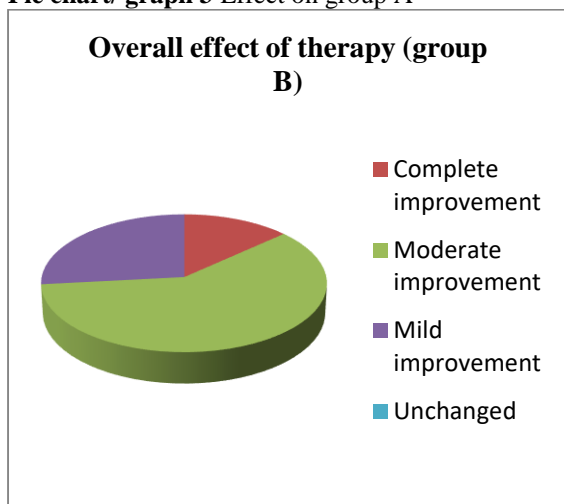
In **Table no.13**, It was seen that maximum no. of patients of group A (*Yogasana* with *Pathya*) were shown complete improvement in their sign and symptoms i.e. more than 75%, however in group B only 13.33%, moderate improvement shown in 60% of group B and 10% in group



A, mild improvement was observed in 26.67% of group B and 6.67% in group A, which shows Yogasanas were shown



Pie chart/ graph 3 Effect on group A



Pie chart / graph 4 Effect on group B

DISCUSSION

Madhumeha is the disease counted under umbrella of 20 types of *Prameha* in ancient Indian literature. Indians were well known about the syndrome from thousands year back, by the name of *Aastravam* in *Atharvaveda* and later *Prameha*. It was said that if one will not manage any kind of *Prameha* leads to *Madhumeha* aka *Ojomeha*. It is defined as the condition

significant effect in reversal of the symptoms in Pre diabetic condition.

where excretion of *Oja* with urine and there were also physical as well as psychological symptoms of *Oja kshaya*. *Oja* is the main extract of all *Dhatu*s and also mentioned as vital energy for one's survival. That's why it is important to prevent the condition to flourish. Psychological conditions leads to *Oja Kshaya* and vice versa. Along with it imbalanced lifestyle was suppose to be a major factor in occurrence of the condition. Ayurvedic physicians were well known about the chronicity of the disease that's why they said it '*Anushangi*' disease. Involvement of genes (*Beejdosha*) as well as sedentary lifestyle (*Apathyanimmitija*) was well known. It was said that one should manage the diseases at earliest as possible i.e. initial *Kriyakaal*. Initial symptoms of all *Prameha* were same as said by our *Acharyas* and initial involvement of *Kapha Dosh*a and later *Pitta* and at the end *Vata*. It's best to manage the disease at its initial stage and thus prevent its further co-morbid outcomes.

Pre diabetic individual who loses 5-7% of body weight and get at least 150 minute a week (approx 20minutes/day) of moderate physical activity can reduce the risk of developing type2 diabetes by 58%. Pre diabetes is said as grey area from which the



condition can be reversed. So can be said it's the best opportunity to change. And usually people don't know about the condition.

Yogasanas were said for achievement of good health as well as a stable mind so that one can achieve higher goals of life. In a condition like pre diabetes from which the disease like type2 diabetes can be reversed *Yogasanas* are of great benefit. *Yogasanas* not have only physical or physiological benefit but also had psychologically booster for the individuals of the disease. As in Ayurveda Prameha is said to a disease of *Abadha Kapha* and *Meda*, then to stabilize that *Asana* posses a great role as said they are best for *Dridhikarna*. Acharya charka had said that *Vyayama* along with some dietary rules can prevent *Prameha's* occurrence. And by finding benefit of *Asana* over *Vyayama* gives a view in choosing of *Asana*.

So, keeping all these in mind, this study was carried out.

Discussion on disease-

Purvarupa of *Madhumeha (Prameha)* were selected for the study with Pre diabetic condition. Pre diabetes is the condition in which blood glucose level is more than normal limits but not up to that it can cause diabetes.

Madhumeha is a type of *Prameha* out of 20 described by *Acharyas*. *Madhumeha* was given importance because if any kind of *Prameha* not gets managed than finally it leads to *Madhumeha*. And all type of *Prameha* had same *Purvarupa*, if didn't prevent their progression than they leads to cause various *Prameha* including *Madhumeha*. Pre diabetic condition is similar to *Purvarupa* as if it will not be treated than it may leads to Diabetes Mellitus or NIDDM which is matter of concern of the study.

Symptoms taken for study as subjective parameters were-

Karapadyosuptata – due to *KaphaavaratVata*

Pipasa – due to *Pitta Vridhi* and *Udakakshaya*

Mukhatalukanthasosha – due to *RukshaVataVridhhi & Rasa*

Aalasya – due to *KaphaVridhhiSthiraguna*
Malamkaye – due to *Meda&Mansa Mala Vridhhi*

Vistrasharirgandha – due to *Pitta Vridhhi (VistraGuna)* and *MedoDhatu Mala Vridhhi*

Tandra and *Nidra* – *Kapha Guru, Manda&SthiraGunaVridhhi*

Discussion on *Pathyaapathya* –

Pathya's importance well known in all conditions and *Madhumeha* is said as



Apathyanimitija Vyadhi, so to correct that it is mandatory to follow Pathya. In ancient classics a huge stress was given on following of Pathya and along with it, in few diseases Pathya also mentioned to prevent the disease from occurrence, *Prameha/ Madhumeha* is one of them. *Prameha* and *Medoroga* both are mentioned from same origin and it is said that *Pathya* in one should be followed in next. *Pathya* which were taken in concern for the study were tried to kept classical but with availability in present and in local area with minimal costing as per rules in dietetics. Mostly mentioned *Pathya* had *Laghu, Ruksha, Ushana, Deepan, Pachana, Tikta, Katu, Kashaya Rasa, Apatarpanakaraka* but not to vitiate *Vata* or *Pitta*. *Apathya* were considered as *Guru, Abhishayandi, Agnishamaka, Santarpanakaraka* etc. Some of them are-
Pathya

Yava - dominated diet which is *Ruksha, Laghu, Sheeta, Madhur- Kashya* and special quality – *Sthyaryakritta* with *Kaphavikaarnut*, so to manage *Abadha Kapha* in *Prameha* which is *Kapha* dominated disease initially it is of great use in Pre-diabetic condition.

Mudga – *Ruksha, Sheeta, MadhurKasaya* with *KatuVipaka, Laghu and Kapha Pitta Nashaka* , **Chanaka** – *Laghu, Sheet, Madhur- Kasaya, Virukshana,*

Kaphapittahara, Kulatha– Ushana, Kashaya, AmalaVipaka, KaphaVatahar, Aadhaki/ Arhar – KaphaPittahara, PuranaShali – Laghu and Kaphahara, Takra – Laghu, Ushana, Kasaya-Madhur, Deepan, Shophanasana, TiktaShaaka-Tikta rasa having qualities of *Deepan, Pachana, Sodhana, Chedhana, Ruksha* and *KledaMeda Vasa LasikaKaphaSoshana* so same qualities present in *Shaaka* dominated by *Tikta Rasa, Sarsapa Tail – KatuTikta, Ktupaka, Ushana, KaphaVatahar* etc.

In this way we can see that following *Pathya* it not only reduces the causative factors but also enhance capacity of body to maintain its equilibrium i.e. *Dosha, DhātuSamanavyata* so that it can delay or prevent onset of *Madhumeha*.

Discussion on *Yogasanas-*

The *Asana* which were chosen for the study were *Mandukasana, Suptavajrasana, Bhujangasana, Halasana, Gomukhasana, and Ardhamatyesandrasana*. In ancient classics these *Yogasana* are said to increase *Agni* like for ***Bhujangasana*** – *DehagniVardhana* which gives indication towards *Dhatwagni* or Metabolism and *Sarvaroganasana,* for ***Ardhamatsyendrasana*** – *Jatharapradipti* means to increase digestive fire and *Prachandroganasha* means to treat dreadful disease and in classics *Prameha* is



said as one, however others are not described in such a way but common effect of *Dridhikarana*, *Laghawa*, *Aarogya* can be attained by them also. Main focus in maintaining or prevention of *Madumeha* or Pre diabetic condition is to

a) Increase *Agni*/ Metabolism to metabolize *Aamora* *Aripakwa* *Dosha*, a cause for *Madumeha* and reduction of *Kapha* and *Meda* for which *Bhujangasana*, *Halasana*, *Ardhamatsyendrasana* plays role.

b) To balance Insulin secretion which was maintained by *Mandukasana* by local stimulation of pancreas (abdominal organs), along with *Bhujangasana* *Ardhamatsyendrasana*,

c) Increase insulin sensitivity with the help of stretching of muscles of extremities in *Suptavajrasana* and *Halasana* there is increased uptake of glucose and fat which in result enhance sensitivity of insulin as well as reduce blood sugar.

d) To balance *Mana*, *Gomukhasana* is one in which there is regulation of breath and relaxation of brain due to oxygenation and due to concentration reduces stress level as a result it gives psychological benefits. As stress reduces there is automatic decrease in glucagon and in result decrease blood sugar and increase insulin level.

Keeping these in mind these six *Yogasana* were chosen for the study. These were chosen as to complement each other

because we need a contrary pose for one so *Mandukasana*-*Suptavajrasana*, *Bhujangasana*-*Halasana*, *Ardhamatsyendrasana* and *Gomukhasana*.

Discussion on Effect of Therapy on both the groups-

Result of subjective parameters-

- In group A (*Yogasanas* + *Pathyapalan*)
 - Relief in *Karapadyosuptata* was 80% (**Table no.01**), in *Pipasa* 87.55% (**Table no.02**), in *Nidra* 94.89% (**Table no.03**), in *Mukhatalukanthasosha* 89.65% (**Table no.04**), in *Aalasya* 80.78% (**Table no.05**), in *Tandra* 81.5% (**Table no.07**), which were highly significant at the level of $p < 0.001$, in *Malamkaye* 37.45% which was insignificant as $p > 0.05$ (**Table no.06**), in *Sharirvistragandhi* 27.78% which was significant ≤ 0.05 (**Table no.08**). Fasting Blood Sugar was reduced by 22.705% which was highly significant at $p < 0.001$ (**Table no.09**). BMI was reduced by 8.181%. It was observed clearly that the symptoms which shown involvement of *Kapha Dosha* shown maximum reduction or relief in symptoms, however the symptoms which possess involvement of *Pitta Dosha* or *Meda/Mansa Dhatu* shown lesser relief. There was marked reduction in Fasting blood Sugar and BMI due to increased metabolism with the help of *Yogasana*.



• **In group B (*Pathyapalan*)** – Relief in *Karapadyosuptata* was 67.62% (**Table no.01**), in *Pipasa* 75.57% (**Table no.02**), in *Nidra* 75.75% (**Table no.03**), in *Mukhatalukanthasosha* 84.89% (**Table no.04**), in *Aalasya* 46.79% (**Table no.05**), in *Tandra* 70.71 % (**Table no.07**), which were highly significant at the level of $p < 0.001$, in *Malamkaye* 14.28% which was insignificant as $p > 0.05$ (**Table no.06**), in *Sharirvistragandhi* 19.04% which was significant ≤ 0.05 (**Table no.08**). Fasting Blood Sugar was reduced by 9.467% which was highly significant at $p < 0.001$ (**Table no.9**). BMI was reduced by 3.241%. Following *Pathya* helps in reduction of *Nidana* and balancing the *Dosha*, however *Pathya* shown effect in reduction on severity of symptoms but % of relief was less, it may take longer duration to see the effect.

Statistically both groups shows almost similar results but in % of relief there were huge difference, which shows that in reversal of the symptoms group A was more significant. Alone *Pathya* indication may take longer duration to show the expected result. Percentage relief difference in subjective parameters in both groups shown in **Table no. 10 and Graph no.01**. Percentage relief difference in objective parameter in both groups shown in **Table no. 11 and Graph no.02**.

Overall effects of therapy –

• **Group A–Table no. 13 , Graph/ pie chart no. 3** shows, Total no. of Patients were 30 in the group out of which 25 (83.33%) shown complete improvement ($>75\%$ relief), 3 patients (10%) moderately improved (50-74%) and only 2 (6.67%) mildly improved (25-49%).

• **Group B – Table no. 13, Graph/ pie chart no. 04** shows, Total no. of Patients were 30 in the group out of which only 4 (13.33%) shown complete improvement ($>75\%$ relief), 18 patients (60%) moderately improved (50-74%) and 8 (26.67%) mildly improved (25-49%).

• Group A shows better results than group B which shows that following *Pathya* is good but to enhance quality of the management *Yogasana* plays great role, with the help of *Pathya* there is enhancement of *Agni* or maintenance of metabolism but *Yogasana* not only enhance *Agni* but due to physical involvement there is utilization (*Pachana*) of *Aam* and can be said deposited fat & increased glucose and also increases insulin sensitivity. Additionally psychological factors acts as cherry on ice, given by present era best managed by *Yogasana*. So it can be said that *Yogasana* plays significant role in reversal of the condition faster along with *Pathya*, hence hypothesis that *Yogasana*



plays important role in prevention of *Madhumeha* is accepted.

CONCLUSION

On the basis of this research work, it can be concluded as following –

- *Prameha Purvarupa* can be interpreted as pre-diabetic stage, as there are no specific symptoms given for the condition in modern medicine but for diabetic stage the given signs are similar to *Rupa* of *Prameha/Madhumeha* so taken in consideration the given parameter of blood glucose level was correlated with *Purvarupa*.
- There is dominancy of *Kapha* among *Doshas*, *Meda* among *Dooshyas* at the stage of *Purvarupa*.
- In ancient classics dietary modification and physical activity is said for prevention of the disease.
- In treatment principle of *Prameha* it is said that for *SthoolaPramehi*, *AptarpanaChikitsa* should be followed, at its initial stage there is dominancy of *Kapha* and *Meda* which was seen in *Nidana* as well as *Purvarupa*. In study also patients found with healthy BMI and of Overweight.
- *Yogasana* were taken as an alternative for the physical activity, as it affects not only physically and physiologically but also psychologically.

- Importance of following *Pathya* is well known and as seen diabetes/ *Madhumeha* is a resultant of *Apathya Sevan*, so *Pathyasevan* gives positive result on symptoms.
- *Ayurvedic* principles are more scientific regarding dietary rules, because they not only act on body but also on psychic.
- *Ayurveda* and *Yoga* completely change lifestyle and bring holistic approach towards the disease management.
- If *Yogasana* were performed with *Pathya* following, it takes less time in reversal of symptoms/ *Purvarupa* of *Madhumeha* and objective parameter related to pre-diabetes.
- Group A shows (*Yogasana* with *Pathya*) better effect than Group B (*Pathya*), in decreasing subjective and objective parameters, as the diseases is mainly *Apathyanimitaja* due to which there was a positive result in group which follows *Pathya* but in present era additional psychological factors along with sedentary lifestyle acts as cherry on ice, to combat that *Yogasana* plays significant role in reversal of the condition faster than alone with *Pathya*.



REFERENCES

1. Acharya Agnivesh, Charaka Samhita revised by Charaka and Dridhabala, edited by Pt. Satri Kashinathaji, Dr.ChaturvediGorakhaNatha, Varanasi, Chaukhamba Bharati Academy,2015, Nidaan Sthana, 8thAdhyaya, 11th verse, page 665.
2. B.K.S. Iyenger, Light on the Yoga Sutras of Patanjali, London, Harper Element publishers limited, Edition 21st,2014,Patanjali Yoga Sutra Sadhana Pada, verse 16, page 123
3. Acharya Vagbhata, Astangasangraha, Sashilekha commentary by Indu, edited by Prof. Mitra Jyotir, Dr. Sharma Shivprasad, Varanasi, Chaukhamba Sanskrit Series, Edition 3rd, NidanaSthana, Adhaya 10th , verse 5, page 391.
4. Acharya Agnivesh, Charaka Samhitarevised by Charaka and Dridhabala, edited by, Padambhushan Sri SastriSatyanarayan, Varanasi, Chaukhamba Bharati Academy, 2007, Chikitsa Sthana, 6thAdhyaya, 48 and 50th verse, page 242.
5. Acharya Susuruta, Susurata Samhita with Tatva Sandipika edited by Kaviraj Shastri Ambika Dutta, Varanasi, Chaukhamba Sanskrit Sansthan,2009, Chikitsa Sthana, 24thAdhayaya, verse 41, page 134
6. SwamiAtmaramji, HathayogaPradipika, edited by DigamberSwami Ji, Dr. JhaPitamber, Pune, Kaivyallaya Dham Sriman Madhava YogmandirSamiti, 2011, page 09