ORIGINAL RESEARCH PAPER

Physiology

EFFECTIVENESS OF CEPHALANDRA INDICA Q IN MANAGING QUALITY OF LIFE & REDUCING BSL IN PATIENTS SUFFERING FROM TYPE II DIABETES MELLITUS IN AGE GROUP 35 TO 60: PILOT STUDY

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ABSTRACT

Type II Diabetes Mellitus is commonest lifestyle disorder found in Indian population & till 2023 about 101 million patients are diagnosed as Diabetes while about 136 million patients are prediabetes. (1) India ranks second among first five countries of D.M. & prevalence of DM in India is 9%. & pre-diabetes is 14% (1) (2) There are many reasons of such high prevalence out of which important reasons are Changing life style, Sedentary habits, High standards of living, Odd working hours, Stress, Pollution, eating erratic food/fast food, Migration to cities from rural areas etc. (2) Treatment at present available is having various side effects such as Hypoglycemia, weight gain, Gastrointestinal disturbances, Liver toxicity, High LDL Cholesterol, high cost. (3) To overcome this difficulties & to study effectiveness of Homoeopathic medicine in D.M. above pilot study was performed. Cephalandra Indica Q was given to 10 patients for the period of 6 months & for assessment of result WHO recommended CDC scale was taken under consideration. It shows marked reduction in various parameters like BSL F & PP, HBA1C, BMI etc. after administration of Cephalandra Indica Q 10-15 drops B.I.D. with ¼ cup of water after meal for the period of 6 months.

INTRODUCTION:

Research Question:
Is Cephalandra Indica Q is effective in managing quality of life & reducing BSL in patients suffering from type II DM in age group of 35 to 60?

Objectives:
• To study efficacy of Cephalandra Indica Q managing quality of life & reducing BSL in patients suffering from type II D.M.
• To study the effect of treatment & clinical presentation of type II D.M In age group of 35 to 60.
• To asses different parameters of BSL reduction & improvement of life quality.
• To study the symptoms of Cephalandra Indica.

Scientific methodology:
Study Design: Quantitative (Variable can be measured), Single blind pilot study. RCT
Type Of Study: Experimental.

Study Setting:
Patients were recruited from the outpatient department of attached homoeopathic medical college & hospital. (AnantraoKanaseHMC&H, Alephata)

Study Population:
Patients having type II D.M. in age group of 35 to 60 years.
Sample Size: 14 Cases
Sample Method – Simple Random Sampling

Null Hypothesis – (H0)
Cephalandra Indica Q is not useful in managing quality of life & reducing BSL in patients suffering from Type II DM, in age group 35 to 60.
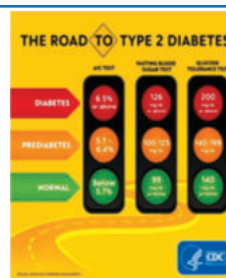
Alternative Hypothesis – (H1)
Cephalandra Indica Q is useful in managing quality of life & reducing BSL in patients suffering from Type II DM, in age group 35 to 60.

Scientific methodology:
For assessment of results CDC Scale (Centers for Disease Control &Prevention) recommended by ADA was used, along with anthropometric measurements. (4)

Anthropometric measurements – (WHO)(5)
1. Body Mass Index (B.M.I.) – (6)
   Weight / Height (Meter) square
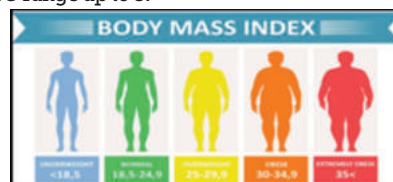2. Waist Hip Ratio – (Waist cm /Hip cm)(7)

Gender	Excellent	Good	Average	At Risk
Male	<0.85	0.85-0.89	0.90-0.95	≥0.95
Female	<0.75	0.75-0.79	0.80-0.86	≥0.86

Inclusion Criteria:
Patients having type II D.M.
• Age group 35 to 60 years ⯈All sexes.
• BSL range (F) up to 200 mg/dl, (PP) up to 300 mg/dl.
• HbA1C range up to 8.

Exclusion Criteria:
• Patients having complications of D.M. such as D
• Retinopathy, D. Nephropathy, IHD etc.
• Patients having BMI more than 30.

Withdrawal Criteria:
• Patients with irregular follow ups.
• Patients not willing to continue treatment.

Result obtained record was preserved in such table format

Sr. No.	Name of patient	Age	Date	BSL (F) BSL (PP) Before/ After	HbA1C Before/ After (Up to 5.7)	weight Before/ After	B.M.I. Before/ After (18.5-24.9)	Waist Hip Ratio Before/ After (0.8 - 1.0)	Outcome
1	Mr. NSP	56	20/1/13	(F) = 110 (PP)	7.2%	78 kg Ht =	28.8	95/90 = 1.05	BSL(F), (PP), HBA1C,

No	Name	Age	Date	BSL	HbA1C	Weight	BMI	Waist Hip Ratio	Notes
				= 165		165 cm			weight, BMI, Waist Hip Ratio increased before treatment
			15/2/23	(F) = 100 (PP) = 140	----	76 kg	28.1	93/88=1.05	
			19/3/23	(F) = 95 (PP) = 130	----	75 kg	27.7	91/88 = 1.03	
			28/5/23	(F) = 88 (PP) = 110	6.5%	72 kg	26.6	90/88=1.02	
			9/7/23	(F) = 85 (PP) = 110	5.9%	70 kg	25.9	85/87=0.97	BSL(F), (PP), HBA1C, weight, BMI, Waist Hip Ratio get controlled within 6 months of treatment.
2	Mrs MRJ (Pre diabetic)	46	10/2/23	(F) =97 (pp) =130	6.2%	62 kg Ht =155cm	26.9	79/96 =0.82	BSL(F), (PP), HBA1C, weight, BMI, Waist Hip Ratio increased before treatment
			05/3/23	(F) = 90 (pp) =120	-----	61 kg	25.4	76/94= 0.80	
			12/4/23	(F)= 88 (PP) = 118	-----	61 kg	25.4	75/93=0.80	
			09/5/23	(F) =85 (pp) = 111	5.5%	60 kg	25	72/90=0.80	
			19/6/23	(F) = 78 (PP) = 110	-----	58 kg	24.1	70/88 = 0.70	BSL(F), (PP), HBA1C, weight, BMI, Waist Hip Ratio get controlled within 6 months of treatment
3	Mr. SBM	35	15/1/23	(F) = 121 (PP) = 221	7.3%	64 kg Ht = 160 cm	25	72/90=0.80	BSL(F), (PP), HBA1C, weight, BMI, Waist Hip Ratio increased before treatment
			9/2/23	(F) = 120	-----	63 kg	25	72/90 =	

Date	BSL	HbA1C	Weight	BMI	Waist Hip Ratio
	(PP) = 180				0.80
7/3/23	(F) = 100 (PP) = 150	-----	62 kg	25	70/90 = 0.77
16/4/23	(F) = 98 (PP) = 140	6.8%	62 kg	25	70/90 = 0.77
20/5/23	(F) = 80 (PP) = 138	------	61 kg	23.8	68/90 = 0.75
17/6/23	(F) = 78 (PP) = 120	-----	61 kg	23.8	68/90 = 0.75

Result of investigations before treatment & after treatment as per CDC scale was preserved which shows significant decrease in parameters like BSL & HbA1C for 6 cases out of 10 cases.

Sr No.	Name of the patient	BSL before treatment	BSL after treatment	HbA1C before treatment	HbA1C after treatment	Result
1	Mr. NSP	(F) = 110 (PP) = 165	(F) = 85 (PP) = 110	7.2%	5.9%	Significant reduction in BSL & HbA1C
2	Mrs. MRJ	(F) =97 (PP)=130	(F) = 78 (PP) = 110	6.2%	5.5%	Significant reduction in BSL & HbA1C
3	Mr. SBM	(F) = 121 (PP) = 221	(F) = 78 (PP) = 120	7.3%	6.8%	Significant reduction in BSL & HbA1C
4	Mrs. KAP	(F) = 150 (PP) = 210	(F)= 96 (PP) =140	6.5%	5.9%	Significant reduction in BSL & HbA1C
5	Mr. WAS	(F) = 250 (PP)= 310	(F) =200 (PP) = 340	9.4%	9.0%	No significant reduction in BSL & HbA1C
6	Mrs. SSK	(F) =200 (PP) = 340	(F) =220 (PP) = 350	9.2%	9%	No significant reduction in BSL & HbA1C
7	Mr. ADG	(F) = 175 (PP) = 246	(F) = 98 (PP) = 142	7.6%	5.5%	Significant reduction in BSL & HbA1C
8	Mr. CVB	(F) = 162 (PP) = 204	(F) = 100 (PP) = 143	6.5%	5.4%	Significant reduction in BSL & HbA1C
9	Mr. DJK	(F) =254 (PP) = 287	(F) =246 (PP) = 296	8.9%	8.5%	No significant reduction in BSL & HbA1C
10	Mr. GKL	(F) = 125 (PP) =234	(F) = 110 (PP) =202	6.6%	6.3%	No Significant reduction in BSL & HbA1C

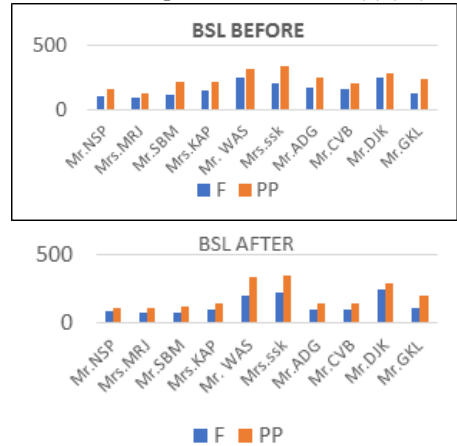Result of investigations before treatment & after

treatment as per CDC scale was preserved which shows significant decrease in parameters like BMI for 6 cases out of 10 cases.

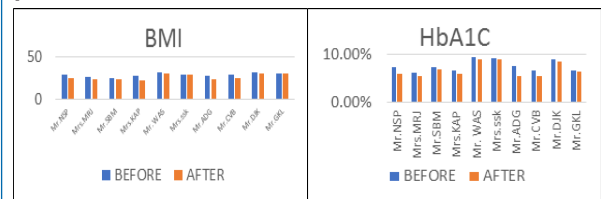| Sr. No.	Name of patient	BMI before treatment	BMI before treatment	Result
1	Mr. NSP	28.8	25.9	Reduction in BMI
2	Mrs. MRJ	26.9	24.1	Reduction in BMI
3	Mr. SBM	25	23.8	Reduction in BMI
4	Mrs. KAP	28	22	Reduction in BMI
5	Mr. WAS	32	31	No reduction in BMI
6	Mrs. SSK	29	29	No reduction in BMI
7	Mr. ADG	28	24	Reduction in BMI
8	Mr. CVB	29	25	Reduction in BMI
9	Mr. DJK	32	31	No reduction in BMI
10	Mr. GKL	30	30	No Reduction in BMI

Finding:
Total 14 cases were studied, 10 cases enrolled in pilot study & analyzed at the end.

T-test was applied at the end of study which shows statistically significant reduction in parameters like BSL (F) (PP) & HbA1C.

CONCLUSION :
As per the T-test Cephalendra Indica Q suggest the promising use in managing quality of life and reducing BSL in patients suffering from type 2 Diabetes Mellitus in age group 35 to 60 yrs

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Auther's Contribution:
Published an article on "A case of Nutritional Anaemia" in International Journal Dental & Medical Sciences Research (IJDMSR Journal) Vol 4, Issue 4, pp327-333, published in Aug 2022.

Conflict of Interest: No any Conflict of interest.

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