

Effect of meditation on Chakra Energy and Hemodynamic Parameters

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ABSTRACT

Meditation is a technique of achieving harmony between the physical, mental, intellectual and spiritual personalities of man. The technique of meditation where a flow of thoughts is encouraged thus using mind in a natural way. Meditation has number of positive effect on the physiology of human body. The aims of this study to observe the effect of meditation on eye center and throat center (*Chakra*) Energy and the hemodynamic parameters (blood pressure, blood oxygen content, and body temperature). Data was collected from 26 Meditators from a meditation centre for 9 days and the results are tabulated and analysed before and after meditation to study the effect of meditation on these parameters. This study will help in proving the positive impact of mediation on life and increase consciousness through chakra energy.

Keywords

Meditation, Consciousness, Chakra Energy, Regular Practices, Cardiovascular diseases, prevention, Regular Practices

1. INTRODUCTION

There are three level of consciousness, namely, physical consciousness, mental consciousness and highest level of consciousness (Spiritual consciousness). The brain consciousness is related to physical consciousness and it simply shows the reflections of mind consciousness where the reflection of spiritual consciousness appears. Since ancient age Conscious would be controlled or improved by meditation (Yoga). There are mainly three types of Yogas eg. i. Yoga for betterment of physical consciousness such as different Yogaasans or Mudras; ii. Yoga for better of mind or mental consciousness such as concentrative Yoga; iii. Yoga for spiritual consciousness such as spirit-sound yoga. The linkage between mind and body widely accepted in ancient time which is now scientifically proven. There are number of scientific studies have undoubtedly proved that physio-cosmetic diseases are increasing such heart problems, stress in life (i.e. wariness, depressions, tensions) and physio-cosmatic reactions like asthma, insomnia, and even heart attacks. In addition, the physical inactivity, stress and behavioral patterns, hormones and an untreated menopausal problems are the risk factor for coronary artery diseases. The human body is so harmoniously arranged that if even any minutest part of it were hurt a little, the whole system become disturbed.

Meditation is one of the effective tools for prevention as well as management of stress. Meditation is the science and harmonizing spiritual mental and physical energy through connection with the ultimate source of spiritual energy called the supreme soul. The fundamental axiom of macrocosmic/microcosmic system of spiritual consciousness is that the

origin of the macrocosm is attributable to an infinite spiritual energy source [1]. It is the state of Spirit consciousness and positive life style. It involves concentration but no physical object is involved [2]. The object of concentration is the inner self. The positive flow of thoughts is based on an accurate understanding of the self and so it acts as a key to unlock the treasure trove of peaceful experiences which are lying within oneself. A man comes to experience peace within himself through meditation.

Relaxation is one of the ways to control undesirable nervous tension and it requires to be learnt through meditation which is directly related to awareness. It can be shown by awareness hierarchy [3]. The figure 1 explains awareness of different levels including Physical awareness (Breath, Senses, etc.), Mental Awareness (Internal thoughts and activities), Spiritual awareness (consciousness currents). This paper deals with the effect of meditation on chakra energy (specially the eye center and throat center). Also it shows the positive effect on blood pressure and other blood related parameters.

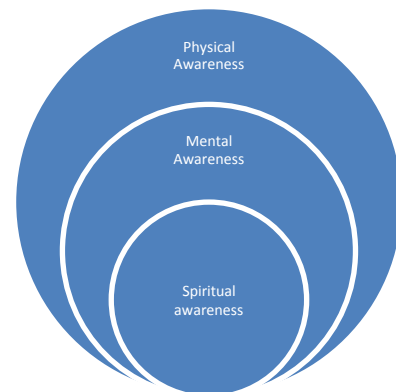


Fig 1 Awareness of different levels

2. AIMS AND OBJECTIVES

This study was contemplated to observe the effect of meditation on *Chakra* energy and hemodynamic body parameters such as blood pressure, blood oxygen level, temperature, etc.. By adopting these non-pharmacological and easy techniques in one's life style, people can lead a healthier life.

3. METHODOLOGY

This study was conducted on 26 healthy people between age of 40-70 years who were selected from meditation centre, were performing meditation regularly for at least 60 minutes of a day before and after meditation. Subjects having a history of hypertension, jaundice, alcoholism, and smoking were not included in the study. The heart rate was counted with the

stethoscope being kept over the apex for one full minute. The systolic and diastolic blood pressure, oxygen level, temperature was checked respectively by a standard sphygmomanometer, pulse oximeter, thermometer.

The self made Sensor (shown in Fig. 2 -3) have been designed to measures the energy level of human at different energy centres (*Chakras*) of the human body which is directly related to the consciousness level of a person [2]. The probe was placed at the throat and third eye energy centres.

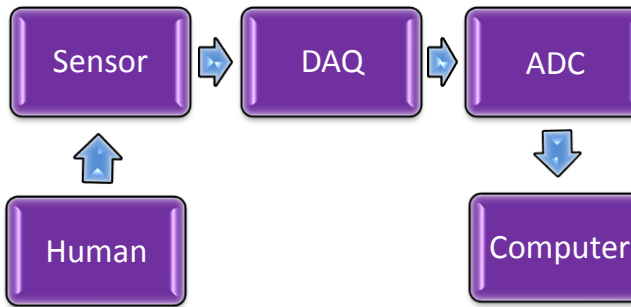


Fig 2 Block diagram of proposed system

4. EXPERIMENTAL SETUP OF ENERGY MEASURING DEVICE

The Sensor shown in Fig 3 is used to measure the Energy Level at different energy centers of the body, which is developed in Dept of Electrical Engineering, Faculty of Engineering, D.E.I. Dayalbagh, Agra, India. This sensor contains a copper electrode that applied to the energy centre and a reference terminal, which is applied to left palm of a body. A few microampere current flows from energy centers to palm through different channels, which indicates the *Chakra* energy of a person. It is mentioned in the literature that *Chakra* Energy is directly related to consciousness [2].

Sensor is connected to computer via DAQ card and LabVIEW has been used as software tool to measure consciousness level of a person. The Sensor has been connected to NI 6216 DAQ card which converts analog signals to digital signals (ADC) and this card is further connected to computer via USB. NI MAX (National Instrumentation- Measurement and Automation Explorer) has been used. This Device is also called Meridian Energy Analysis Devices (MEAD). In Taiwan more than 80% hospitals uses MEAD system for diagnosis of different diseases.

5. EXPERIMENTAL RESULTS

The above mentioned quantities (BP, Heart Rate, Temperature, Oxygen Level, Throat and Eye center energies) are measured before meditation. Then meditation is performed for one hour and the measurements are repeated. The mean value of heart rate of different candidates before meditation was 79.55 and after meditation 71.42. The mean value for systolic and diastolic blood pressure before meditation were 131.36 and 85.35 and after meditation 120.59 and 77.35. Similarly, oxygen level and temperature in the meditators before meditation were 95.84 and 34.45 and after meditation 94.50 and 34.92 respectively. The *Chakra* Energy level is measured at the throat centre and the centre of the line between the two eyes of Human using DEI Meridian Analysis System (DEI-MAS).The mean value for energy level at throat

and eye centre before meditation was 49.49 and 67.86 and after meditation 56.70 and 77.65. The difference was also highly significant. The results are tabulated in Table – 1 to 8. The results clearly show that the BP, Heart rate, temperature, oxygen level and *chakra* energies are changed by meditation as shown in Fig. 5-11. Person feel relaxed after meditation as physiological parameters indicates like heart rate, BP, body temperature, oxygen level in blood reduced after meditation. On the other hand, the eye center and throat center (*chakra*) energy increased after meditation.

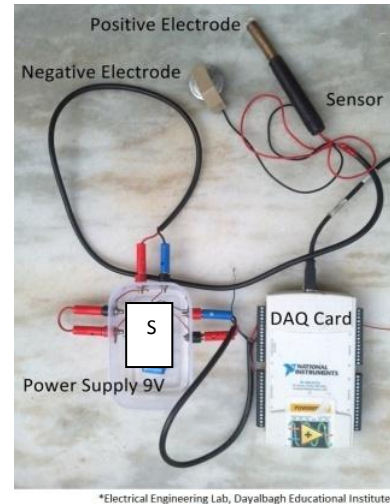


Fig 3 Experimental setup

Table 1 Systolic Blood Pressure(Mean Value)

Sl. No.	Systolic blood pressure(mm Hg)		Difference
	Before meditation	After Meditation	
1	139.25	117.125	22.125
2	124.75	118.75	6
3	136.5	126	10.5
4	144.375	129	15.375
5	136.75	123.125	13.625
6	126.875	123	3.875
7	129.5	112.625	16.875
8	140.375	123.75	16.625
9	124.875	116.625	8.25
10	131.125	117.375	13.75
11	131.125	126.25	4.875
12	145.75	130.75	15
13	127.125	115.875	11.25
14	128.125	112.625	15.5

15	131.125	125.375	5.75
16	126.375	120.25	6.125
17	125	115.875	9.125
18	126.25	122.25	4
19	125.625	116.25	9.375
20	125.5	116	9.5
21	129.25	122.875	6.375
22	140.75	126	14.75
23	133	116.75	16.25
24	132.625	122.625	10
25	125.75	122.875	2.875
26	127.625	115.375	12.25
Avg.	131.36	120.59	

15	82.625	80.375	2.25
16	80.375	75.625	4.75
17	80.375	74.375	6
18	82.375	79.25	3.125
19	80.75	68.625	12.125
20	80.125	73.375	6.75
21	80	73.125	6.875
22	80.125	76.125	4
23	88.875	79.125	9.75
24	88.625	82.625	6
25	84.875	82.625	2.25
26	84	76.5	7.5
Avg.	83.35	77.35	

Table 2 Diastolic Blood Pressure(Mean Value)

Sl. No.	Diastolic blood pressure(mm Hg)		Difference
	Before meditation	After Meditation	
1	80.625	78.875	1.75
2	80.625	77.5	3.125
3	88.625	75.125	13.5
4	83	76.125	6.875
5	83	75.625	7.375
6	82.5	78.375	4.125
7	80.5	70	10.5
8	85.625	83.5	2.125
9	82.625	81.375	1.25
10	88.75	81.25	7.5
11	88.75	82.625	6.125
12	88.75	82.5	6.25
13	80.25	73.125	7.125
14	80.375	73.375	7

Table 3 Heart Rate (Mean Value)

Sl. No.	Heart Rate		Difference
	Before meditation	After Meditation	
1	3.50255	8.86405	6.375
2	6.30051	7.78276	1.875
3	4.086126	11.2432	15
4	7.679983	3.62530	5.125
5	7.704359	8.77394	7.875
6	4.062019	5.07092	0.75
7	4.978525	5.17549	6.5
8	8.42509	8.60128	4.5
9	14.54979	18.1575	18
10	3.105295	6.73874	4.875
11	5.849298	4.52769	1
12	2.712405	11.2686	12.875
13	3.399054	7.00510	0.625
14	4.926242	7.62982	7.875
15	3.73927	10.4710	9.125
16	5.365232	6.39195	6.25
17	5.365232	12.6913	10
18	2.976095	13.9840	14.375
19	7.754031	7.64852	1.125
20	7.869471	7.00510	2

21	9.724784	8.75764	10.625
22	8.514693	10.6234	5.75
23	3.700869	6.05775	3.5
24	4.96955	8.97217	7.125
25	4.840307	9.98212	21.75
26	10.58216	4.45413	26.5
Avg.	79.55	71.42	

Table 4 Temperature (Mean Value)

Sl. No.	Temperature (^o c)		Difference
	Before meditation	After Meditation	
1	34.8125	34.1	0.7125
2	34.55	34.1	0.45
3	34.975	34.45	0.525
4	35.3	35.1	0.2
5	34.775	34.4375	0.3375
6	35.2875	35.1375	0.15
7	35.3125	34.9	0.4125
8	35.2375	34.35	0.8875
9	35.775	35.225	0.55
10	34.1875	33.75	0.4375
11	35.175	34.675	0.5
12	34.0125	33.55	0.4625
13	35.325	34.725	0.6
14	35.3375	34.725	0.6125
15	35.375	35.1625	0.2125
16	35.075	34.75	0.325
17	34.8125	34.175	0.6375
18	34.7375	33.65	1.0875
19	34.6875	34.175	0.5125
20	34.55	34.075	0.475
21	34.775	34.25	0.525
22	34.6625	33.9625	0.7
23	34.8375	34.625	0.2125
24	34.65	34.4	0.25
25	34.675	34.5125	0.1625
26	35.1375	34.7875	0.35
Avg.	34.92	34.45	

Table 5 Oxygen Level (Mean Value)

Sl. No.	Oxygen level		Difference
	Before meditation	After Meditation	
1	93	92.375	0.625
2	95	94.25	0.75
3	98.125	95.375	2.75
4	97	96	1
5	94	91.875	2.125
6	96.625	93.375	3.25
7	94.25	93.75	0.5
8	97.625	96	1.625
9	96.375	94.875	1.5
10	95	94	1
11	95.5	94.125	1.375
12	96.125	94.75	1.375
13	95.875	95.625	0.25
14	97	95.875	1.125
15	97.375	95.875	1.5
16	95.75	94.75	1
17	97.375	95.5	1.875
18	97.25	95.75	1.5
19	96.625	95	1.625
20	96.25	95	1.25
21	94.625	94	0.625
22	95.75	94.75	1
23	96.375	94.25	2.125
24	95.25	93.625	1.625
25	96.125	95.25	0.875
26	91.625	91.25	0.375
Avg.	95.84	94.50	

Table 6 Energy Level at Throat Centre (Mean Value)

Sl. No.	Energy level at Eye centre		Difference
	Before meditation	After Meditation	
1	77.125	88.75	11.625

2	62.5	75.875	13.375
3	86.875	94.25	7.375
4	68.875	74.125	5.25
5	72.75	86.875	14.125
6	76.25	87.25	11
7	85.375	93	7.625
8	57.625	69.125	11.5
9	74.875	90	15.125
10	76.125	85.75	9.625
11	57.5	71.625	14.125
12	59.375	67.875	8.5
13	57.25	68.5	11.25
14	42.125	55.75	13.625
15	65.125	76.5	11.375
16	78.625	80.875	2.25
17	43.375	52.75	9.375
18	72.5	83.125	10.625
19	71.625	78.5	6.875
20	46.25	60.125	13.875
21	66	68.375	2.375
22	68.125	78	9.875
23	68.75	76	7.25
24	80.125	87.625	7.5
25	79.625	86.125	6.5
26	69.625	82.375	12.75
Avg.	67.86	77.65	

Table 7 Energy Level at Eye Centre(Mean Value)

Sl. No.	Energy level at Throat centre		Difference
	Before meditation	After Meditation	
1	58.75	63.875	5.125
2	44.875	51.5	6.625
3	74.125	78.375	4.25
4	50.25	52.375	2.125
5	63	63.875	0.875
6	47.25	55.25	8

7	65	73.875	8.875
8	42	53.85	11.85714
9	57.375	62.5	5.125
10	56.125	64.25	8.125
11	36.25	47.125	10.875
12	39.625	53.125	13.5
13	43.875	48.14	4.267857
14	30	41	11
15	44	55.375	11.375
16	50.375	56.875	6.5
17	32.625	37.625	5
18	51.625	61.875	10.25
19	56.375	62.875	6.5
20	41	53.125	12.125
21	41.875	50.75	8.875
22	54.25	64.375	10.125
23	41.25	45.625	4.375
24	52.875	54.5	1.625
25	68	71.375	3.375
26	44.125	50.875	6.75
Avg.	49.49	56.70	

Different studies stated that benefit of meditation, by modifying the state of anxiety, reduces the stress induced sympathetic overactivity resulting in lowering the blood pressure and heart rate. The consciousness increases by meditation.

Table 8 Statistical Analysis

Factor	Before Meditation (Mean Value)	Standard Deviation	After Meditation (Mean Value)	Standard Deviation	Difference (Mean Value)	Difference (S.D.)
Systolic blood Pressure	131.36	6.36	120.59	4.98	10.77	1.38
Diastolic blood Pressure	85.35	3.36	77.35	4.09	6	.73
Heart Rate	79.55	2.80	71.42	3.26	8.13	.46
Oxygen Level	95.84	1.48	94.50	1.25	1.34	.23
Temperature	34.45	.46	34.92	.39	0.47	.07

Energy level(Eye centre)	67.86	11.96	77.65	11.07	9.79	.89
Energy level(Throat centre)	49.49	10.88	56.70	9.70	7.21	1.18

A. Measurement at Eye centre



Fig 4.1 Measurement at eye centre

B. Measurement at Throat centre

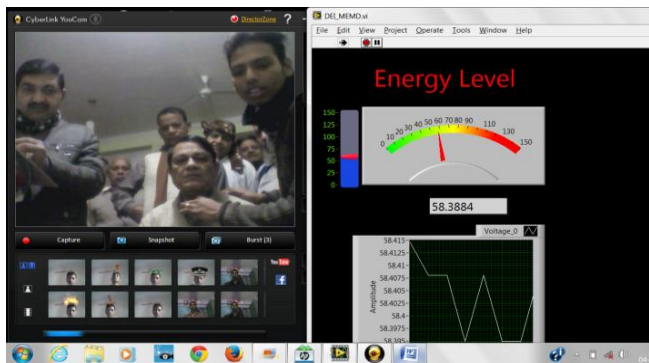


Fig 4 Measurement at Throat centre

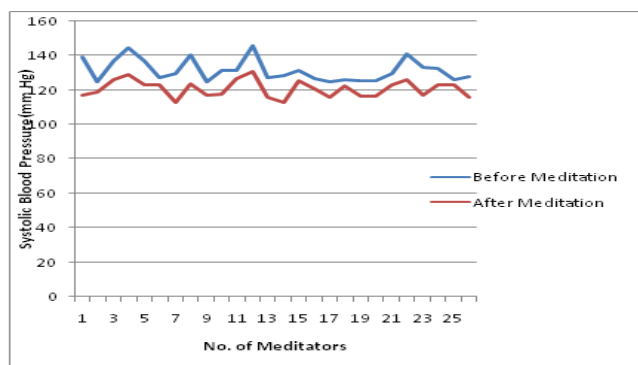


Fig. 5 Comparison Of Systolic Blood Pressure Before And After Meditation

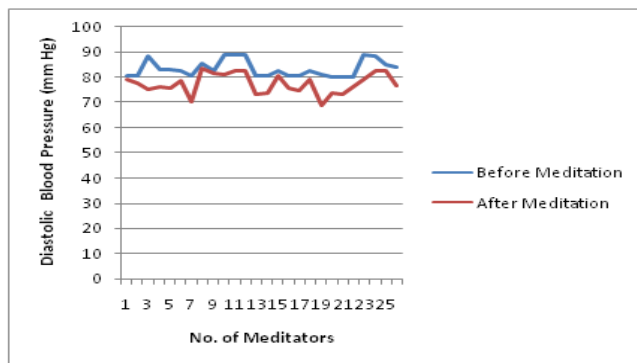


Fig. 6 Comparison Of Diastolic Blood Pressure Before And After Meditation

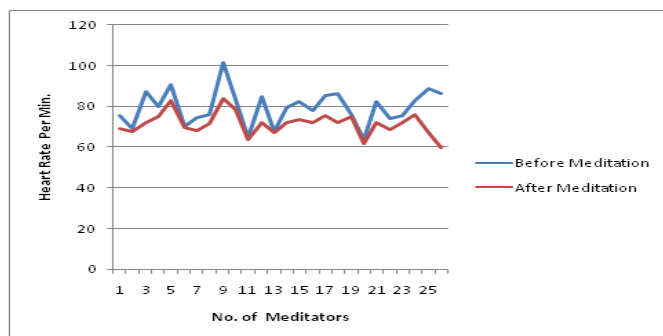


Fig. 7 Comparison Of Heart Rate Before And After Meditation

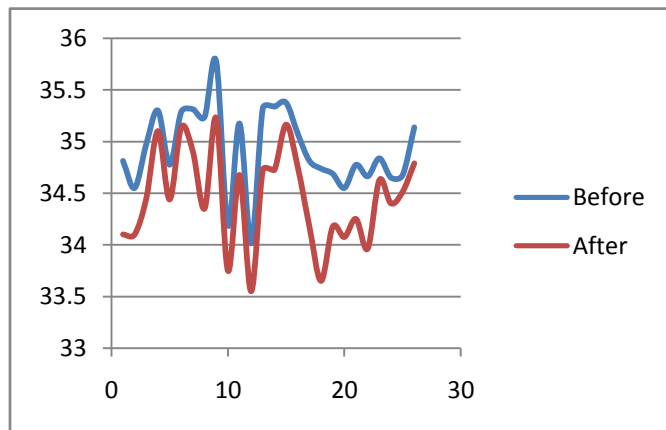


Fig. 8 Comparison Of Body temperature Before And After Meditation

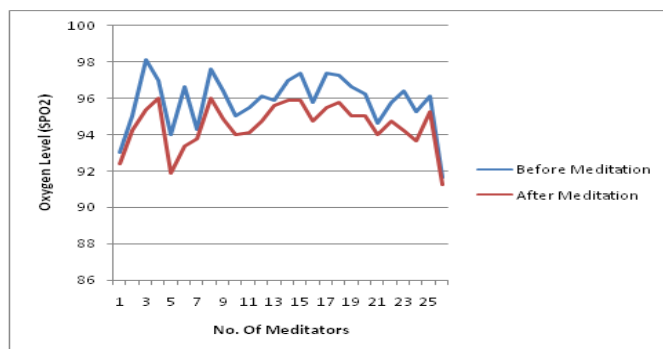


Fig. 9 Comparison Of Oxygen Level Before And After Meditation

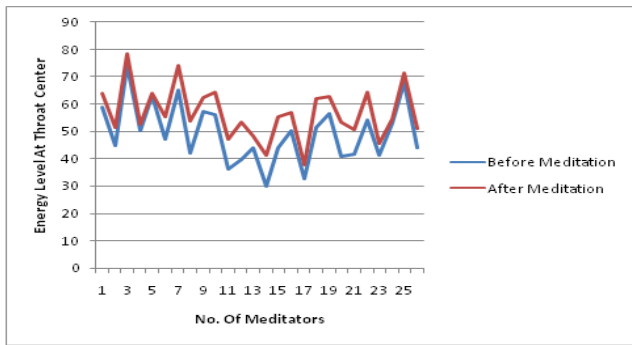


Fig10 Comparison Of Energy Level Before And After Meditation (Throat Centre)

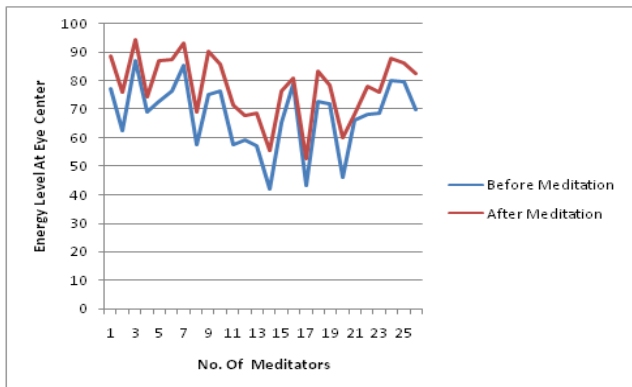


Fig. 11 Comparison Of Energy Level Before And After Meditation (Eye Centre)

6. CONCLUSION

From the above result it is concluded that the meditation increases eye center and throat center (*chakra*) energy, which increases consciousness in the body. The study conducted here, proves that chakra energy does not depend on hemodynamic parameters. Although, Meditation has positive Effect on hemo-dynamic parameters of the body like the cardio vascular System and is used as non Phrmacological Method to Prevent Heart Diseases. The decrease the Mean Heart Rate and regulates the Systolic Blood Pressure, Diastolic Blood Pressure in the Meditators due to activation of parasympthetic state and it indicated that they have lower risk of developing the Cardiovascular Diseases. Meditation help to built up physical resistance, emotional harmony, and balance in life through eradiction of root cause in mind. It reduces tensions and help inflowing positive energy in the body by stilling the brain.

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