



Effect of Suryanamskar and Bhastrika pranayama on lipid profile level

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Introduction: Now a days, there is an enormous increase in heart patients. Cardiovascular muscles dysfunction has become a very serious and common problem, particularly in the urban area. Surprisingly and sadly, even young people of age group of 25-45 are also having heart problem these days. There are basically 6 factors which affect our heart –Tension, Overweight, High blood pressure, High cholesterol level, Smoking and Lack of exercise. Raised cholesterol level increases the risk of heart diseases and stroke .Yoga treatment is the best solution for these cholesterol disorders.

Damodaran et.al. (2002) -yoga can play an important role in risk modification for cardiovascular disease .In yoga suryanamskar and bhastrika pranayama are more effective in cholesterol disorders

,because they not only work physically but also act psychologically .We should turn towards natural way of treatment. There are many references that has proved the role of yoga for health.

Mody B.S. (2011) - Suryanamskar practice stimulates and conditions virtually every system in the body. It is good for heart and stimulates the cardiovascular system .It oxygenates the blood and help strengthening the heart.

Ajay et. al. (2008) - A study conducted on patients with angina and coronary risk factors showed a positive response in lipid profile after 4-14 weeks of yogic practices while another study conducted on subjects with mild to moderate hypertension reported that yoga can play an important role in risk modification for cardiovascular disease.

Ganesh shanker (2006), views that pranayama promotes circulation of blood in the thoracic and abdominal cavities, due to the pressure changes during the different stages of pranayama .From above mentioned study we can say that bhastrika pranayama promotes circulation of blood. Iyenger B.K.S.(2002) also said that pranayama helps to maintain the flow of pure blood , through the nerves, brain, spinal cord and cardiac muscles ,thus maintaining their efficiency .

One of the reason behind the increased cholesterol levels that the fats in our body don't get burned due to lack of physical exercise, suryanamskar and bhastrika pranayama control cholesterol ,reduce the fat content and thus ensures a healthy heart . We can say thasuryanamskar and bhastrika pranayama are easy to practice and beneficial for cholesterol patients.

Objective : This research is aimed to study the effect of suryanamskar and bhastrika pranayama on lipid profile level of all subjects. For this study Directional hypothesis was applied.

Hypothesis

1. There is significant effect of suryanamskar and bhastrika pranayama on total cholesterol level.
2. There is significant effect of suryanamskar and bhastrika pranayama on triglycerides level.
3. There is significant effect of suryanamskar and bhastrika pranayama on HDLc level.
4. There is significant effect of suryanamskar and bhastrika pranayama on LDLc level.

Methodology: Sample :- sample

size for this research work is 20, where patients are selected for the experiment on the basis of BMI, BP measurement and pulse rate from Rewa (M.P.) , Here purposive sampling was chosen . Purposive sampling is done regarding a purpose, the purpose of my sampling was to find out patients suffering from overweight and high BP, those can be chosen for the therapy.

Research Design: -I have used “pre test- post test research design” in this study. In such design a single test group is selected and dependent variable is measured before the introduction of the intervention and dependent variable is measured again after the intervention has been introduced.

Tools: - For chemical examination of the patients –“Blood test of the sample was done to measure the lipid profile”.

In lipid profile:- Total cholesterol –Enzymatic method, Triglycerides – Enzymatic colometric method, HDLc – Phosphotungstate method, LDLc – Here a formula is used in LDLc result.

Company:- Siemens health care diagnostic limited For physical examination of the patients

1. Weight measured by BMI formula.
2. Blood pressure measured by sphygmomanometer.
3. Pulse rate through radial palpation.

Procedures: - During the practice time keep the environment clean and peaceful. Arrange everything, which is needed for the practice. Suryanamskar and Bhastrika pranayama technique can be

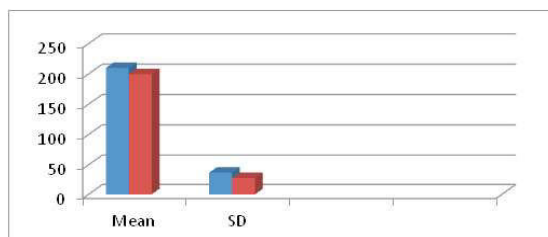
obtained from Iyenger yoga method by B.K.S. Iyenger with the time duration of 30 days.

Results:-Total cholesterol result Table-1

	N	M	SD	r	Sed	df	t-value	Significance level
Pre	20	209.8	37.03	0.98	2.227	19	4.66	0.01
post	20	199.45	28.18					

There is significant effect of suryanamskar and bhastrika pranyama on total cholesterol level. t-test was applied and the calculated t-test value is 4.66 which is significant in 0.01level.

Graph 1

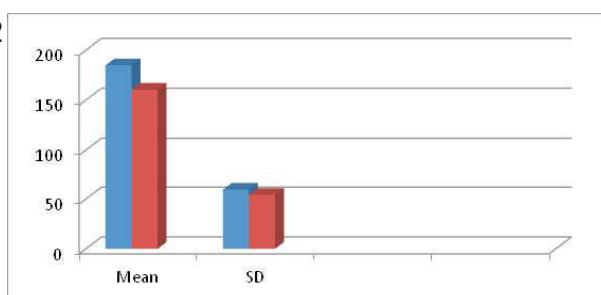


Triglycerides Result Table-2

	N	M	SD	r	Sed	df	t-value	Significance level
Pre	20	184.8	59.40	0.97	3.28	19	7.42	0.0
post	20	160.45	54.1					

There is significant effect of suryanamskar and bhastrika pranayama on triglycerides level. t-test was applied and the calculated t-test value is 7.42 which is significant in 0.01level.

Graph 2



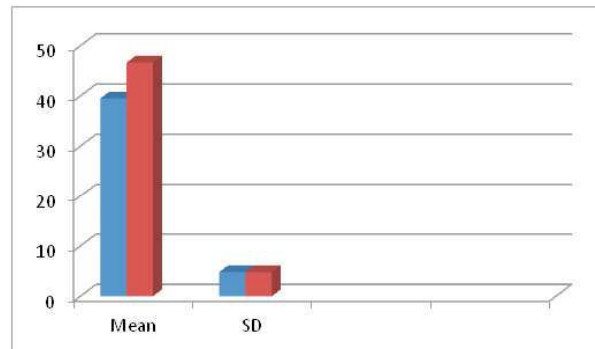
HDLc Result Table-3

	N	M	SD	r	Sed	df	t-value	Significance level
Pre	20	39.5	4.80	0.71	0.80	19	8.93	0.01
post	20	46.65	4.76					

There is significant effect of suryanamskar and bhastrika pranyama on HDLc level, t-test

was applied and the calculated t-test value is 8.93 which is significant in 0.01 level.

Graph 3



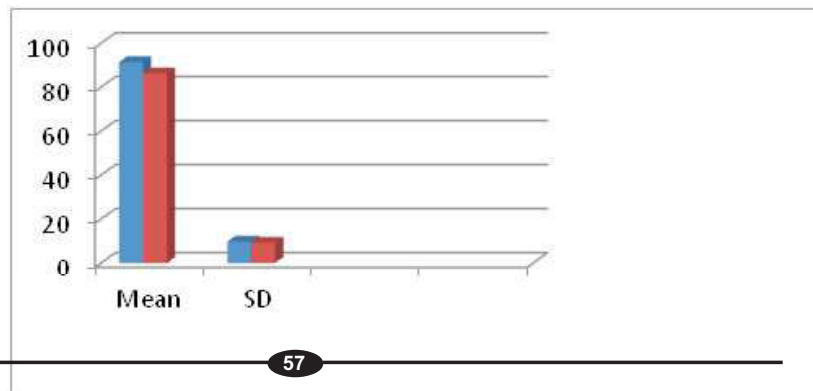
LDLc Result Table-4

	N	M	SD	r	Sed	df	t-value	Significance level
Pre	20	91.4	9.66	0.91	0.9	19	5.72	0.01
Post	20	86.25	9.15					

There is significant effect of suryanamskar and bhastrika pranyama on LDLc level, t-test was

applied and the calculated t-test value is 5.72 which is significant in 0.01 level.

Graph 4



Discussion:-The above table shows pre mean value of total cholesterol as 209.8mg/dl and the post value as 199.5mg/dl. Pre mean value of triglycerides is 184.8mg/dl and post mean value is 160.45mg/dl. In HDLc pre mean value is 39.5mg/dl and post mean value 46.5mg/dl. In LDLc pre mean value is 91.4mg/dl and post mean value is 86.25mg/dl. This result shows that total cholesterol, triglycerides and LDLc levels significantly decreased and HDLc level is significantly increased by doing recommended yogic practice of suryanamskar and bhastrika pranayama.

Scientists in general have made the connection between higher stress level and an increase in LDL cholesterol level. Yoga takes care of lowering stress which results in lower cholesterol (By Frank mangano 2005). Suryanamskar is an ancient art that is defined as union of soul with 'God'. It is a path of personal spiritual development that utilizes meditation to bring enlightenment, self-realization and ultimately the attainment of god and bliss. The different fundamental aspect of the pranayama such as rhythmical breathing can improve the cardiac function. Pranayama perseveres and restores the nervous function and cardiac function which reduces the heart disease. (Lakhdev 1986). We can say that suryanamskar and bhastrika pranayama effectively balance the lipid profile on blood serum.

Conclusion :- The results of the study indicate the positive impact of yogic exercise on lipid profile level, heart disease and cholesterol disturbances on human body.

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