

Immediate Effect of Vaman Dhauti on Tridosha (As Measured by Nadi Tarangini)-A Pre-Post Control Study

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Abstract

Background : When Vata, pitta and kapha is in balance condition then we called this individual is in health condition (R.Vidyanath, 2012). Tridoshas have their respective characters and functions. These three dosha – Vata, Pitta, Kapha – govern all the biological, psychological and psychopathological functions of the body. (Lad, 1984) Tridosha are the fundamental elements of the body that help to maintain body functioning well in our daily routine when it is in the balance condition. Nadi Tarangini is a pulse based ayurvedic diagnosis system through the electronic device equipped with a strain gauge, a transmitter with amplifier, and the digitizer to quantify analog signal (Joshi, Kulkarni, Chandran, Jayaraman, & Kulkarni, 2007). So there is no subjective bias while feeling the pulse. Also using machine can save the time and money. (Joshi, Kulkarni, Chandran, Jayaraman, & Kulkarni, 2007)

The objective of this study is to find the statistical changes in imbalance in Tridosha level before and after Vaman Dhauti practice through Nadi Tarangini. The hypothesis is that Vaman Dhauti practice may reduce participant's imbalance in tridosha level.

Methods:

The experiment is conducted on Long-term residential students of SVYASA yoga university Bangalore, Karnataka. Sample size is 34. Both male and female healthy persons are taken. Age range 20 to 40 years. Self as control Pre-post design.

Results: Experimental group balance decreased statistically significantly. Pitta level increased statistically significantly in control group whereas the decrease in pitta in experimental group is not statistically significant.

Conclusion:

The decrease in the imbalance in tridosha in control group is 4.28% whereas that in experimental group is 29%. This is showing a positive change of a better moving towards balance of Tridosha in experimental group as compared to the control group. (However none of these changes are statistically significant. This indicates that the practice of vaman dhauti reduces the imbalances and makes the person move towards better health.

Keywords: Yoga, Vaman Dhauti, Tridosha, Nadi Tarangini

Introduction

There are five basic elements manifest in the human body, which are ether, air, fire, water and earth. And combination of these five elements formed three doshas or humors in the body which are well known

as tridosha—Vata, Pitta, Kapha. Vata dosha formed by the combination of ether and air element, Pitta dosha formed by the combination of fire and water element, Kapha dosha formed by the combination of ether and water element. (Vidyanath, 2012)

These three dosha – Vata, Pitta, Kapha – govern all the biological, psychological and psychopathological functions of the body. (Lad, 1984) Tridosha are the fundamental elements of the body that help to maintain body functioning well in our daily routine when it is in the balance condition. If they are out of the balance, diseases will start appearing in the body. Tridoshas has their respective characters and functions. Perfect balance of Tridosha lead to health. (R. Vidyanath, 2012)

The major moderator of vomiting is vagus which works in nucleus tractus solitarius in strict co-ordination with the area of brainstem's vestibular centers, emotional and sensory areas and postrema. The sign of the vomiting is contraction of thoracic muscles and abdominal muscles, excessive saliva secretion, normal gastric motility decreased, retention of breath, sweating, and so on. (Balakrishnan, Nanjundaiah, & Manjunath, 2018)

Vaman Dhauti, or kunjla kriya is beneficial for healthy people to maintain the health. It can clean the upper tract of digestive system which is from stomach to mouth, disease caused by accumulation of impurities and toxins in this region can be removed and prevented. It is useful to remove the excessive acidity from stomach, relieve digestive disorders, cures bad smell while breath, sore throat and throat phlegm, so it is especially beneficial for those who has pitta and kapha disorders. It gives profound influence to one's nervous system. Saline water helps to reduce the acid secretions from stomach glands which further help to improve the efficiency of digestion. It is also an effective practice for asthmatics. Practice of kunjla kriya when there is asthma attack can give immediate great relief due the relaxation of contracted and tightened airways get relaxed. (Saraswati, 2012)

Methodology

34 students of SVYASA Deemed to be University are taken for the study.

Students of both genders within the age of 20 to 40yrs were taken. Written informed consent was taken. Half of the members are given Vaman Dhouti on 1st day and their pre – post readings are collected. On that day remaining half were just made to sit free for the same period and pre- post readings were taken. After 7 days, those who were sitting earlier were given Vaman Dhouti and those who did Vaman dhouti earlier were made to sit. The pre-post readings were taken for all with the help of Nadi Tarangini. Self as control Pre-post design.

Intervention

The lukewarm water added with a little salt will not be easily absorbed by the body, and it will flush out with the help of kunjla kriya practice. Whatever remains after practice, will be absorbed or through skin pores in the form of sweating or excreted through kidney in the form of urination. (Saraswati, 2012) Kunjal kriya is beneficial for healthy people to maintain the health. It can clean the upper tract of digestive system which is from stomach to mouth, disease caused by accumulation of impurities and toxins in this region can be removed and prevented. It is useful to remove the excessive acidity from stomach, relieve digestive disorders, cures bad smell while breath, sore throat and throat phlegm, so it is especially beneficial for those who has pitta and kapha disorders. It gives profound influence to one's nervous system. Saline water helps to reduce the acid secretions from stomach glands which further help to improve the efficiency of digestion. It is also an effective practice for asthmatics. Practice of kunjla kriya when there is asthma attack can give immediate great relief due the relaxation of contracted and tightened airways get relaxed. (Saraswati, 2012). After Vaman Dhouti 15 minutes of Deep Relaxation Technique given in Shavasana.

Steps of Vaman Dhauti	Duration (min)
Drink lukewarm saline water	10 min
Exercise	2 min
Vomit	3 min
DRT (listen the record of instruction)	15 min
Total	30 min

Outcome Measures

- **Bala** : It represents the

strength of doshas, dhatus and ojas.

- **Tridosha**: Vata, pitta and kapha together formed Tridosha.
- **Vata**: Formed by the combination of ether and air element.
- **Pitta**: Formed by the combination of fire and water element.
- **Kapha**: Formed by the combination of ether and water element.

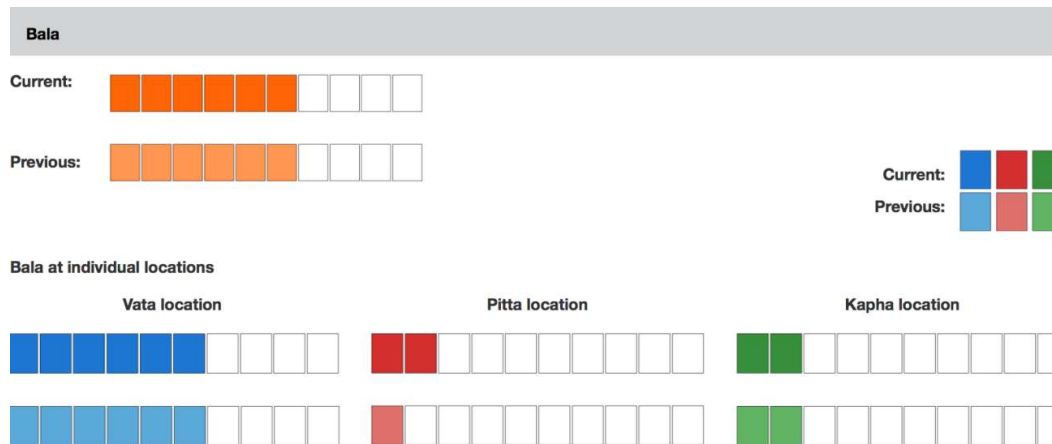


Fig.1 Results of Bala through Nadi Tarangini

Table 1. Descriptive Statistics for Nadi Tarangini new version data

Group	Parameters	N	Minimum	Maximum	Mean	Std. Deviation
Control						
Post_Bala	33	1	10	3.67	2.791	
Post_Bala_VATA	33	0	10	2.24	2.681	
Post_Bala_PITTA	33	0	10	1.76	2.705	
Post_Bala_KAPHA	33	0	4	.45	1.034	
Pre_Bala	33	1	10	3.70	2.845	
Pre_Bala_VATA	33	0	10	2.48	3.094	
Pre_Bala_PITTA	33	0	9	1.15	2.210	
Pre_Bala_KAPHA	33	0	4	.61	1.029	

Experimental					
Post_Bala	34	1	10	3.24	2.189
Post_Bala_VATA	34	0	10	2.53	2.585
Post_Bala_PITTA	33	0	5	.67	1.216
Post_Bala_KAPHA	34	0	4	.76	1.156
Pre_Bala	34	1	9	4.50	2.620
Pre_Bala_VATA	34	0	9	3.44	3.116
Pre_Bala_PITTA	34	0	7	1.09	1.881
Pre_Bala_KAPHA	34	0	7	.82	1.566

Data Analysis

All the data has been analyzed through SPSS Statistics Version 10 and R studio. The data was displayed with mean \pm standard deviation. Kolmogorov-Smirnov test and Shapiro Wilk's test are used for normality assessment. Then Wilcoxon matched rank test is used for computing the difference between each matched pairs when the data is not normally distributed.

Results Of Primary Outcomes

In the control group, the mean vata level increased whereas in the experimental group mean vata level decreased. The mean pitta level increased in the experimental group as well as in control group. The mean Kapha level decreased in both the experimental group and the control.

In control group:

Pre variation in Vata:Pitta:Kapha is 24.5-17.5= 7

Post variation in Vata:Pitta:Kapha is 32-14=18

The imbalance between the Doshas is more in post compared to pre by 11 in case of control. The percentage of increase in imbalance is $1100/7\% = 157.14\%$

In experimental group:

Pre variation in Vata:Pitta:Kapha is 22.0-14.5= 7.5

Post variation in Vata:Pitta:Kapha is 20-14.25=5.75

The imbalance between the Doshas is more in pre compared to post by 1.75 in

case of Experimental. The percentage of decrease in imbalance is $175/7.5 = 23.3\%$

As measured by Nadi Tarangini new version machine:

Mean Vata and Mean Kapha levels decreased in control and also in experimental groups. Mean Pitta in control group increased whereas mean pitta in experimental group decreased.

In Nadi Tarangini new version machine, the imbalance in tridosha decreased in control as well as experimental group.

The decrease in control group is 4.28% whereas that in experimental group is 29%. This is showing a positive change of a better moving towards balance of Tridosha in experimental group as compared to the control group. However, none of these changes are statistically significant.

Discussion

Experimental group bala decreased statistically significantly. Pitta level increased statistically significantly in control group whereas the decrease in pitta in experimental group is not significant. This indicates the change in pitta level with respect to the time of the day has influenced the pitta levels that are measured.

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Summary

As the time of starting the experiment to closing the experiment is changing from early morning to latter part of morning, control group's pitta levels increased. Experimental groups pitta levels also must have increased by that level if intervention is not there. Because of intervention, the natural increase of pitta by the time of the day is arrested and also there is a decrease in the pitta compared to pre value. This indicates that pitta has been influenced highly by the experiment.

The mean Kapha level decreased in both the experimental group and the control group. As the time of the day is changing, the kapha levels reduce as per Ayurveda. Hence in both groups kapha levels showed a decrease.

Conclusion

In Nadi Tarangini new version machine, the imbalance in tridoshas decreased in control as well as experimental group. The decrease in control group is 4.28% whereas that in experimental group is 29%. This indicates that the practice of vaman dhouti reduces the imbalances and makes the person move towards better health.

Implication of the study

The imbalance in tridoshas decreased in control as well as experimental group. The decrease in control group is 4.28% whereas that in experimental group is 29%. This indicates that the practice of vaman dhouti reduces the imbalances and makes the person move towards better

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