

**Part I: A Comparative Study of Sat Karmas of Yogic Texts & Pancha karmas of Ayurvedic Texts**

**Part II: Effect of Kunjal Kriya on Heart Rate Variability Spectrum**

By

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**ABSTRACT**

**Part I: A Comparative Study of Sat Karmas of Yogic Texts & Pancha karmas of Ayurvedic Texts**

The present study was conducted to have a comprehensive view of the concepts of two basic purificatory processes in *Yoga* and *Āyurveda*. Purificatory processes are mentioned in *Vedas*. The purification through *Ñat karmās* which is also commonly known as *Ñat kriyās*, is mentioned first in *Haöha yoga pradöpika*. The *Ñat karmās*, the six cleansing techniques are named as *Dhauti*, *Basti*, *Neti*, *Trāöaka*, *Nauli*, and *Kapālabhati*. *Caraka*, the *Āyurveda Ācarya*, mentions the practice of different limbs of yoga for the prevention and cure of the diseases and maintenance of health along with other procedures of the *Āyurveda*. The *Āyurveda* texts describe the five purificatory processes called *Païca karmās*. They are *Vamana*, *Virecana*,

*Vasti*, *Nasya* and *Rakta mokñana*. Both the *Ñat karmas* and *Païca karmās*, the *çodhana* type of treatments, are based on same concepts of improving the health. Each of the *Ñat karmas* can be compared with the *Païca karmās* either by the similarities with their procedure or by the similar effect over the body. For example *Basti* with *Vasti*, *Neti* with *Nasya*, *Vamana dhauti* with *Vamana karma*, *Vārisāra (Çaikha prakñālana)* with *Virecana* is compared with one another for the same reason. Variations in practice also have similarities. For example *Karēa dhauti* and Oiling of ears, *Jihva müla dhauti* and Oral gargling, *Danta müla dhauti* and *Dantaprakñālana*, *daëöa dhauti* and oral hygiene through gargling. Thus, in this study, an effort is made to explore the similarities between the *Ñat karmās* and *Païca karmās* relating to their basic

concepts and therapeutic effects. A combined approach of using herbs in various *Ñat karmās* is also listed with few commonly used herbs. Further research can be done on beneficial effects of use of herbs in *Ñat karmās*.

## SUMMARY AND CONCLUSIONS

Beneficial effects of some of the *Ñaö karmās* and *Païcakarmās* have been studied by modern science. Here a detailed study of this traditional knowledge is attempted in this dissertation. These practices have been incorporated in the Integrated approach of yoga therapy used in several Nature cure, Yoga and Äyurvedic hospitals in India and abroad, with beneficial effects. *Ñaö karmās* of Yoga and *Païca karmās* of Äyurveda are life supporting processes with geater of similarities. Though they appear different they are complimentary to each other. They help to bring about a balance between physical laws and cosmic laws. Even in UK and USA several centers recommending *Neti* as a daily routine. By this the hypersensitivity disorders, migraine are very well prevented. It is said that the mouth breathing in children leads to poor memory, low concentration and impaired development. So, *Neti* clears off nasal passage. Like this yoga has become part and parcel of daily life. Even though it is not a system of medicine, its therapeutical effect is mesmorizing the people. *Ñaö karmās* provide a unique opportunity for the system to repair and rejuvenate.

Use of herbs:

The use of drugs is not actually mentioned in yoga but references to the medical concepts are found. *Païca karmās* make use of many herbs to get the desired effect. The use of herbs in *Ñaö kriyās* is mentioned in ancient text like *Gheraëöa samhita*, *Haöha yoga pradépika*, *Haöha ratnävali*. *Gheraëöa samhita* states that different herbs can be used in *kriyās*. In *müla çodhanam* turmeric root can be used to clean the bowels in stead of small finger. *Gheraëöa samhita* alsomentions the use of plantain stalk or a stalk of turmeric or a stalk of sugar cane can be used to thrust the esophagus in *Daëöa dhauti*. *Danta müla dhauti* is practiced with the help of catechu-powder. *Haöha ratnävali* states that jaggery water, coconut water or milk can be used in *vamana dhauti*. So, the purification was done by the use of herbs. The herbs can be used for *kriyās* as follows:

<u>1. Neti:</u> (Here <i>neti</i> can also be performed by immersing <i>sūtrās</i> in these <i>kaçāyas</i> at least for twenty four hours.)	a) <i>Jalaneti</i>	<i>Kūñmānòà rasa</i> <i>Apāvarga</i> <i>Dūrva kaçāya or svarasa</i>
	b) <i>Sūtra neti</i>	<i>Haridra kaçāya</i> <i>Snuhi rasa</i>
<u>2. Dhauti.</u>	a) <i>Vamana</i>	<i>Madana phal rasa</i> <i>īyeñòà madhu</i> <i>Ēkñu Rasa</i>
	b) <i>Vastra</i>	<i>Tāmbūla rasa</i> <i>Droëa pushpi</i>
	c) <i>Daëòà</i>	<i>Haridra Nāla</i>
<u>3. Basti</u>	<i>Jala Basti</i>	<i>Til taila</i> <i>Airaëòà taila</i> <i>Indra vāruni</i> <i>Sonā mukhi withtil taila or honey</i>
<u>4. Träòaka</u> (The oil is used to lit the lamp)	<i>Bahir träòaka</i>	<i>Kadira taila</i> <i>Açvatta taila</i>

Lifestyle modifications maximize the success of treatment. The life supporting activities include meditation, proper rest, moderate exercise, purificatory *kriyās*, *Präëayama*, seasonal routine and daily routine along with dietary considerations. Undue physical and mental stress can be avoided using these techniques. Hence the suggestions to maintain good Health according to Integrated approach of yoga therapy (IAYT) and *Äyurveda* includes cleaning as an essential component of life style modification.

1. Clean the teeth and gums as a regular practice.
2. Use *Jala Neti* or nasal cleaning with water daily.
3. Go for rubbing of the tongue with the fingers daily.
4. Eat only when there is appetite.
5. Always leave a little room in stomach at the end of each meal. *Haöha yoga pradépika* says, only half of the stomach should be filled with solid food. One fourth should be filled with water and one fourth should be left for air. (Verse -1.58)
6. Eat in a calm atmosphere.
7. Avoid foods which are deep fried, spicy and high caloric.
8. Practise *Präëayama* daily for balancing the *nadis*.

9. Practise one pointed gazing or *Träöaka* along with palming. Near and distant gazing is advised especially for persons with computer work.
10. Drink water abundantly at least two liters a day.
11. Avoid stress and strain as far as possible.
12. Practice relaxation in the form of meditation which brings stillness and silence to the mind and senses.

When a man lives in tune with the laws and cycles of nature, nature supports the state of health and wellbeing. This support can be facilitated by using simple *Kriyā*. This facilitates a harmony between man and nature.

## **Part II: Effect of Kunjal Kriya on Heart Rate Variability Spectrum**

The present study was conducted to have a comprehensive view of the concepts of two basic purificatory processes in *Yoga* and *Āyurveda*. Purificatory processes are mentioned in *Vedas*. The purification through *Ñat karmās* which is also commonly known as *Ñat kriyās*, is mentioned first in *Haöha yoga pradépika*. The *Ñat karmās*, the six cleansing techniques are named as *Dhauti, Basti, Neti, Träöaka, Nauli, and Kapālabhati*. *Caraka*, the *Āyurveda Ācarya*, mentions the practice of different limbs of yoga for the prevention and cure of the diseases and maintenance of health along with other procedures of the *Āyurveda*. The *Āyurveda* texts describe the five purificatory processes called *Païca karmās*. They are *Vamana, Virecana,*

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## SUMMARY

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The matched case control study was aimed to determine the effect of *kuijala kriyā* on autonomic nervous system using heart rate variability. The two groups of healthy subjects (38 & 32) were studied. The experienced group (Ex) had practised *kuijala kriyā* at least four times before, the novices (Nv) practised *kuijala kriyā* for the first time. The HRV recorded for five minutes immediately before and after the *kriyā*. Design was matched case control. As data was normally found to be distributed (Shapiro- Wilk test), paired t-test was done for analysis. The result showed decrease in the HRV spectrum in experienced subjects rather than novices. There was more increase in heart rate in novices subjects rather than exposed subjects. The genderwise comparison (Independent t- test) between experienced and novices showed that there is significant change in the males of the novices group and there was no significant difference in between the females of two groups. The result of this study can be summarized that the sympathetic stimulation as shown by heart rate variability spectrum is less in the subjects who are experienced to *kuijala kriyā* earlier when compared to those who are novices.

**Keywords:**Sat Karmas, Pancha karmas, Kunjal Kriya, Heart Rate Variability Spectrum.