



EDITORIAL

BIO-PURIFICATION THERAPY IN AYURVEDA: A CRITICAL REVIEW

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Abstract

Shodhana therapy is intended for purification of the body, by which the accumulated morbid humors responsible for disease are expelled out to produce an ideal environment for proper functioning of body. But Panchakarma, the purification therapy expounded in Ayurveda is perhaps the most misunderstood of all the Ayurveda practices. Due to ignorance, it is often perceived as just another system of oil massage. The process of the forceful expulsion of the Dosha is known as Shodhana. It is of five types i.e. Niruha, Vamana, Virecana, Nasya, and Raktamokshana. Ayurveda advises undergoing Panchakarma at the seasonal changes to clean the body, improve the digestion and metabolism.

Panchakarma presents a unique approach of Ayurveda with specially designed five procedures of internal purification of the body through the nearest possible route. Such purification allows the biological system to return to homeostasis and to rejuvenate rapidly & also facilitates the desired pharmaco-therapeutic effects of medicines administered thereafter. Panchakarma has a full therapy role as promotive, preventive and curative procedure. According to ancient Ayurvedic scholars, the elimination of the waste products of the body is termed as Apakarshana, which means Shodhana.

Keywords: Ayurveda, Panchakarma, Bio-Purification Therapy, Bio-humors (Dosha)

Introduction :

Shodhana therapy is intended for purification of the body, by which the accumulated morbid humors responsible for disease are expelled out to produce an ideal environment for proper functioning of body.

But Panchakarma, the purification therapy expounded in Ayurveda is perhaps the most misunderstood of all the Ayurveda practices. Due to ignorance, it is often perceived as just another system of oil massage.

The process of the forceful expulsion of the Dosha is known as Śodhana. It is of five types i.e. Niruha, Vamana, Virecana, Nasya, and Raktamokshana.¹

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body through the nearest possible route. Such purification allows the biological system to return to homeostasis and to rejuvenate rapidly and also facilitates the desired pharmaco-therapeutic effects of medicines administered thereafter.² Panchakarma has a full therapy role as promotive, preventive and curative procedure. According to ancient Ayurvedic scholars, the elimination of the waste products of the body is termed as Apakarshana, which means Shodhana.³

In today's world when more and more people are falling victim to the adverse effects of stress and anxiety, which is leading to diseases like improper digestion, lack of sleep, allergies, heart diseases, diabetes, chronic fatigue, cancer, osteoporosis etc. These diseases are caused mainly due to deeply seated toxins. With the process of Panchakarma it eliminates these toxins from the body, allowing healing permanently of tissues, channels, digestion and mental functions.

Panchakarma is not only good for alleviating disease but is also a useful tool in maintaining excellent health. Ayurveda advises undergoing Panchakarma at the seasonal changes to clean the body, improve the digestion and to improve the metabolic processes.

If the Doshas are vitiated beyond a particular level, they give rise to various endotoxins, which have a tendency to be accumulated in the minute channels. These are beyond the level of pacification and hence need to be eliminated or removed from the body. In such cases, the second type of treatment, which is Shodhan Karma or cleansing therapy, is indicated. Since it consists of the five types of main therapies, it is known as the Panchakarma.

Panchakarma not merely bio-purificatory therapy as it is understood, but also having wider range of therapeutics such as replenishing, depleting, rejuvenating therapies etc.

Bio-purification therapy (Shodhana Karma) is intended for purification of the body, by which the accumulated morbid bio-humors responsible for disease are expelled out to produce an ideal environment for proper functioning of body.

Bio-purification therapy is indicated in the stage of excess aggravation of bio-humors (Bahudosha). Charaka stressing on the essentiality of purification told that, without breaking the boundary wall, it would not be possible to dry up a pond. Similar is the case when the bio-humors are exceedingly vitiated. Then expelling by purification is the only way, because palliative therapy does not have the capacity to subside them.⁴

Panchakarma is always performed in three phases; Preparatory procedures, Main Procedure and Post-operative procedure. It is essential for the patient who opts for any one of the five therapies to undergo all these three phases.

Panchakarma (Five Major Purificatory Therapies) :

1. Vamana Karma: therapeutic vomiting or emesis therapy
2. Virechan Karma: purgation or catharsis therapy

3. Basti Karma: enema therapy
4. Nasya Karma: errhine therapy
5. Raktamokshaṇa Karma: bloodletting therapy

Vamana (emesis therapy): When there is congestion in the lungs causing repeated attacks of bronchitis, colds, cough or asthma, the Ayurvedic treatment is therapeutic vomiting (vamana), to eliminate the kapha. Therapeutic vomiting is also indicated in chronic asthma, diabetes, chronic cold, lymphatic congestion, chronic indigestion and edema.

Virechana (purgation therapy): When excess Pitta is accumulated gall bladder, liver and small intestine, it tends to result in rashes, skin inflammation, acne, chronic attacks of fever, biliary vomiting, nausea and jaundice. Ayurvedic literature suggests in these conditions the administration of therapeutic purgation.

Basti (enema therapy): Vata predominant site is the colon. Ayurvedic basti involves the introduction into the rectum of herbal concoctions of sesame oil, and certain herbal preparations in a liquid medium. Basti, is the most effective treatment of Vata disorders. It relieves constipation, distention, chronic fever, cold, sexual disorders, kidney stones, heart pain, backache, sciatica and other pains in the joints. Many other Vata disorders such as arthritis, rheumatism, gout, muscle spasms and headaches may also be treated with Basti.

Nasya (errhine therapy): The nose is the gateway to the brain. The nasal administration of medication is called Nasya. An excess of bodily humors accumulated in the sinus, throat, nose, or head areas is eliminated through the nose. Prana, life force as nerve energy, enters the body through the breath taken in through the nose. Prana is in the brain and maintains sensory and motor functions. Prana also governs mental activities, memory, concentration and intellectual activities. Deranged prana creates defective functioning of all these activities and produces headaches, convulsions, loss of memory and reduced sensory perception. Thus nasal administration, nasya is indicated for prana disorders, sinus congestion, migraine headaches, convulsions and certain eye and ear problems.

Raktamokshana (therapeutic bloodletting): Toxins present in the gastro-intestinal tract are absorbed into the blood and circulated throughout the body. Also the metabolic waste products not eliminated properly and the free radicals produced by them are the basic cause of repeated infections, hypertension and certain other circulatory conditions. This includes repeated attacks of skin disorders such as urticaria, rashes, herpes, eczema, acne, leukoderma, chronic itching or hives. In such conditions bloodletting is indicated. Extracting a small amount of blood from a vein purifies the pitta. Bloodletting also stimulates the spleen to produce antitoxic substances which helps to stimulate the immune system. Toxins are neutralized enabling radical cures in many blood born disorders.

Importance:

1. The Doshas that are pacified by Shodhana never recur but those pacified by Langhana Pācana etc. may recur.⁵
2. Charaka told the benefits of Shodhana therapy as follows. Vitiated Doshas are eliminated, the power of digestion and metabolism is enhanced, diseases are cured, normal health is restored, sense organs, mind, intelligence and complexion become clear; gain of strength, plumpness, offspring and virility occur; person is not affected by old age and lives long without any disease.⁶
3. The unique feature of the Panchakarma therapy is to destroy the disease from the root, which was beautifully quoted by Charaka as follows- if the plant is destroyed except root, then again it grows, in the same way if Doshas are not destroyed from the root, they again cause diseases. Shodhana therapy acts on the root sites of Dosha and remove them from the body, so that there is no further nutrition to the other Dosha Sthāna leading to a healthy condition. Thus Panchakarma is a radical treatment.⁷

Utility:

In a person of disturbed homeostasis, there is impaired anabolism and catabolism resulting into the decreased nutrition and

immunity impaired excretion of waste products leading to the Mala Sanchaya (collection of metabolic waste). All these leads to formation of free radicals, causing tissue damage and final outcome will be metabolic disorder. In such conditions Sroto Shodhana is essential which is effectively done by Panchakarma therapy.

Purification allows the biological system to return to normalcy and to rejuvenate rapidly & also facilitates the desired pharmacokinetic effect of therapeutic remedies administered thereafter. It eliminates toxins and stagnated malas & metabolites from the body, cleans the macro & micro channels, maximizes the absorption & metabolism of nutrients & drugs, helps in minimizing their dose & toxicity.

There is great need of Emergency treatment for poisoning because only Shodhana Dravya (purificatory drug) are having the properties of immediate action. Shodhana is also administered in chronic poisoning. In the current era also, human being is more frequently exposed to acute and chronic poisoning, pesticide, chemical preservatives etc. So there is great need of Shodhana at least twice a year to purify the body from these toxic substances. It has now been scientifically proven that a natural purification treatment can successfully eliminate environmentally toxic substances such as polychlorinated biphenyl (PCB's) and pesticides from the body, without damaging side effects.⁸

Principles of Bio-purification:

Symptoms of excessive aggravation of bio-humors:

Indigestion, anorexia, obesity, anemia, heaviness, tiredness without any exertion, eruption, rashes, itching, lassitude, laziness, tiredness, weakness, bad odor, depression, stupor, impotency, loss of intelligence, bad dreams, loss of strength, loss of color.⁹

Purification according to nearest route:

After Snehana and Svedana, when Dosha come to the Koshṭha, they should be expelled from the nearest route.

Table 1
Table showing site, nearest route and best therapy for bio-humor

| Sl. | site of bio-humor | bio-humor | nearest route | therapy |
|-----|-----------------------|--------------|---------------|----------|
| 1 | stomach | Kapha, Pitta | oral | Vamana |
| 2 | lower part of stomach | Pitta | rectal | Virecana |
| 3 | large intestine | Vata | rectal | Basti |
| 4 | head | Kapha | nose | Nasya |

Purification according to Dosha:

Kapha, Pitta and Vata Dosha should be removed by Vamana, Virecana and Basti respectively. (Table 2)

Table 2
Purification according to strength of patient/subject

| Sl. | strength of bio-humor | strength of subject | type of purification |
|-----|-----------------------|---------------------|----------------------|
| 1 | least | least | mild |
| 2 | medium | medium | moderate |
| 3 | best | best | superior |

Table 3
Purification according to season:

| Sl. | Season | Type of Purification |
|-----|------------------------|----------------------|
| 1 | Spring | emesis |
| 2 | Autumn | purgation |
| 3 | initial phase of rainy | enema |

Indications of Shodhana:

1. Before the administration of Rasayana and Vajikarana Aushadha Yoga
2. Shodhana is indicated in the stage of Bahudosha
3. For prevention of Kalaja Roga (seasonal diseases)
4. Before the administration of Rasa Aushadhi and Shamana Yoga
5. Before the administration of other Panchakarma procedures such as Shirobasti, Kayaseka, Dhara etc.
6. Before surgery for e.g. Ashmari
7. Maharshi Suśruta told that aggravated Dosha should be removed. Dalhana commenting on the above Shloka told that, the Shodhana should be performed in Cayapurva Prakopa

Avasthā. Suśruta considered Vamana and Virecana Karma as main Shodhana therapies, as they remove the Dosha in excess quantity at once

8. In emergency conditions like poisoning

Research Works on Panchakarma:

1. Panchakarma (PK) was given for 3-5 days to 31 subjects (15 male and 16 female), with a mean age of 40.6 years. Fasting blood samples were tested for biochemical parameters before (visits A and B), during (visit C), 1 week following (visit D), and 2.9 months following (visit E) PK. Vasoactive intestinal peptide (VIP), a coronary vasodilator, rose a significant 80% by 2.9 months after PK. Total cholesterol fell acutely in all subjects and HDL cholesterol rose 7.5% ($p=0.015$) after 2.9 months if original values were <15 mg/dL. Lipid peroxide, a measure of free radical damage, rose during PK, then fell to lower levels at 2.9 months. Pulse and diastolic blood pressure were reduced after PK. State anxiety measures improved significantly. These results indicate that PK is useful in improving cardiovascular risk factors.¹⁰

2. This study was conducted to assess the effects of Maharishi Panchakarma in the areas of physiology and psychology. Total cholesterol, triglycerides, creatinine, urea, uric acid, and glucose were measured before and immediately after a two-week treatment period on up to 93 patients. Psychological evaluation was made using the Freiburger Personality Inventory (FPI), which was administered to 106 subjects before, immediately after, and 6-8 weeks after treatment. Results showed reductions in total cholesterol from 203.5 mg/dL to 179.5 mg/dL ($n=82$, $p<0.001$), and in urea from 23.9 mg/dL to 20.4 mg/dL ($n=70$, $p<0.01$). Uric acid, triglycerides, creatinine, and glucose did not show significant changes. Over the two-week treatment period, significant changes on 6 of the 12 FPI scales were observed, including reductions in bodily complaints, irritability, bodily strain, psychological inhibition, and openness, as well as greater emotional stability. Psychological testing six to eight weeks after treatment showed evidence of sustained benefits for mental health and well-being. No significant

changes were observed in physiological or psychological parameters in 10 control subjects, except for a temporary increase in aggression. These findings support the results of previous research on Maharishi Panchakarma indicating its effectiveness in improving physiological and psychological health.¹¹

3. The results for the pilot study showed that the experimental subjects reported significantly greater improvements in well-being, energy-vitality, strength-stamina, appetite and digestive patterns, previous complaints generally, and rejuvenation and youthfulness than control subjects ($p=0.05$ to <0.00001). Sleep patterns changed nonsignificantly. In the second study, the experimental subjects decreased significantly more than controls on overall distress ($p=0.003$). On the POMS subscales, anxiety, depression, and fatigue decreased, and vigor increased significantly more for the experimental group than the controls ($p=0.03$ to 0.003). Confusion decreased marginally ($p=0.06$) and anger decreased non-significantly. These preliminary findings suggest that the Maharishi Ayurveda

Panchakarma program is associated with improvements in mental and physical health symptoms, at least in selected subjects. This traditional program of natural health care may help to address current public health demands for efficacious and practical health-promotion and disease-prevention programs.¹²

Physiological Purification Techniques:

In the area of physiological purification, MVM recommends multimodality purification therapies on a seasonal basis for enhancement of physiological homeostasis, removal of impurities (toxins) that accumulate over time, promotion of mental and emotional well-being and overall physical health (Sharma, 1996). These procedures have been described in the classical Vedic medicine texts and have been recently and collectively termed Maharishi Rejuvenation Therapy (MRT). These procedures are all prescribed and supervised by trained physicians. Briefly, MRT consists of home preparatory procedures to loosen and remove superficial impurities by taking ghee (clarified butter) on several consecutive days followed by

purgation with castor oil. This is followed by several days of an in-residence set of procedures to remove deeper-seated impurities, which are prescribed according to the individual's physiological imbalances and include whole-body medicated oil massage (abhyanga), flowing of medicated oil on the forehead (shirodhara), herbalized fomentation (swedana), nasal administration of herbs (nasya) and herbalized enemas (basti). Proposed physiological mechanisms of action for several of these procedures have been described (Smith, 1992).

In a controlled study, Schneider and coworkers found that 142 patients undergoing similar purification treatments had reported, after a one week treatment period, significantly greater improvements in well-being, energy-vitality, strength-stamina, appetite and significantly less anxiety, depression and fatigue than 60 control subjects who participated in a didactic class on MVM (Schneider, 1990). A more recent study found that following a typical 5 day purification program, total cholesterol fell acutely and HDL cholesterol rose significantly three months following treatment. Lipid peroxides and diastolic blood pressure also dropped while state anxiety measures improved significantly. Vasoactive intestinal peptide (VIP), a coronary vasodilator, rose significantly by 80%.¹³

Misconception about Bio-purification:

The Detoxification Program comprises of polyherbal formulations designed to specifically target some important organs of the body for detoxification. Some of the important organs are the colon (large intestine), kidneys, liver, lung, blood, lymphatic system, and the complete digestive system to name a few.

Many people confuse Colon Irrigation, Colon Hydrotherapy, Colonics, Enema, and the Ayurvedic Basti offered in many cities in India and the rest of the world as Detoxification. This is really detoxification of only one organ - the Colon, and not the whole body. This is misconception that the Panchakarma does only local purification; rather it is systemic purification of whole body even each cells of the body. It has now been scientifically shown that a natural purification treatment can successfully

eliminate environmentally toxic substances such as polychlorinated biphenyl (PCB's) and pesticides from the body, without side effects.

The modern detox therapy comes under palliative therapy and is helpful in some minor conditions. Acc. to Ayurveda this detox therapy is beneficial in only when the bio-humors are aggravated in lesser degree; in case of greater aggravation of bio-humor the only radical way is Bio-purification by emesis or purgation therapy.

So, from these evidences it is clear that some of the narrow minded medical practitioners calling detox therapy remove toxins better than Panchakarma.

Table 4
Differences between Biopurification & Detoxification:

| | Bio-purification | Detoxification |
|--------------------|---|---|
| Definition | Process of expelling the toxins or unwanted substances from body | Process of nullifying the toxins without expelling out |
| Duration required | 15 days to 1 month | 3 month to 6 months |
| Type of therapy | purificatory | palliative |
| Therapeutic effect | Radical, permanent and quicker. Also rejuvenates the systems and increases immunity | Toxins are not neutralized completely, Temporary and takes longer time. |

Toxic Matter and Elimination:

Dr. Vasant Lad opines that according to the nature of the cause, Vata, Pitta or Kapha undergo aggravation or derangement, which affects the digestive fire and produces toxins (Āma). This Āma enters the blood stream and is circulated throughout the body, clogging the channels. Retention of toxins in the blood results in toxemia. This accumulated toxicity, once well established, will slowly affect vital life energy (Prana), and immunity resulting in disease.

This is absolutely wrong opinion, because the toxin produced not only enters into blood but also all the other tissues. The mixing or amalgamation of toxin depends on its affinity towards the vitiated Dosha and the specific tissue. So after examining the involvement of the bio-humors and tissues the Panchakarma therapy

is selected. If Dr.Vasant Lad’s concept is correct only blood letting is enough for all diseases to expel the toxic matters from blood.¹⁴

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