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Role of panchakarma in the management of metabolic disorders

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Abstract

Metabolic syndrome which includes some of the above is a worldwide problem. App. 20-30% of adult populations are affected. Gradually this no. is increasing because of poor lifestyle especially regarding dietary pattern, physical inactivity, stressful life and rapid urbanisation. The Panchakarma (Ayurvedic purification methods) claims the management of metabolic disorders hence this work gives the target specific evidence for the clinical studies. The proposed project is aimed to explore the particular molecular mechanism of action, to make this therapy more evidence based.

Keywords: Ayurveda, panchakarma, metabolic disorders

Introduction

The ayurvedic literature is full of therapeutic claims and its products are in clinical practice, since centuries. The sustainability of this system itself is enough to support its authenticity, but still scientific endeavors are required for its acceptance at international forum. The Government of India has also put it on priority. One of the ancient practices of Ayurveda is panchakarma therapy, which has both therapeutic and rejuvenating potentials.

The Ayurvedic approach to the treatment of disease consists of two major procedures; Samshodhana chikitsa (Purificatory therapy) and samshamana chikitsa (Pacifying therapy) Panchakarma is one of them. It is a unique bio-cleaning therapy of Ayurveda which brings about homeostasis of the body and eliminates disease causing toxic substances from the body. After hemo-concentration is achieved; virechana is done on the fourth day. During the process of shodhana the body fluids are influenced for therapeutic purposes, here the body fluids are removed either through the upper or lower route. The gastro intestinal tract is lined by mucous membrane, which has a dual nature of absorption and secretion. The absorption nature is exploited for Shamana chikitsa and the secretion nature is exploited in Shodhana chikitsa.

The panchakarma is a specially designed set of five procedures of internal purification of the body through the nearest possible route. Such purification allows the biological system to return to haemostasis & to rejuvenate rapidly & also facilitates the desired pharmacotherapeutic effects of medicine. The elimination of waste products is known as shodhana (Purification). These are performed in three phases-Preparatory phase, main procedure and post-operative phase. Though many clinical studies carried out in Ayurvedic institutions throughout the country have proved the clinical efficacy of this procedure in metabolic disorders like obesity, diabetes mellitus, it has not received much attention of its mechanism and modern investigations possibly due to the conceptual compatibility difficulties. In classics text it has been clearly mentioned that these procedures can act as a curative, preventive and health promotive measure. Even after proven clinical claims, we are not able to give scientific explanation behind the mechanism of action of these interventions. This may be brought about by subtle changes at cellular level by modulating physiological, biochemical and immunological activities at molecular level. It can be assumed that if it is possible to establish and standardize these procedures in experimental animals, it would be possible to make attempts to elicitate the concepts at sub-cellular level and mechanism which is difficult to be carried out in clinical settings.

A metabolic disorder can happen when abnormal chemical reactions in the body alter the normal metabolic process. Metabolic disorder occurs when the metabolism fails and causes the body to have either too much or too little of the essential substances needed to stay healthy.

There is a large list of metabolic disorders which include diabetes, obesity, galactosemia, Hypo

and hyperthyroidism, acid-base balance related problems, etc. If not all, but in some of the metabolic disorders ayurvedic panchkarma treatment has proved to be a huge help. Panchkarma has shown its effect in obesity hypertension, diabetes, elevated cholesterol, etc.

Metabolic syndrome which includes some of the above is a worldwide problem. App. 20-30% of adult populations are affected. Gradually this no. is increasing because of poor lifestyle especially regarding dietary pattern, physical inactivity, stressful life and rapid urbanisation.

Metabolic syndrome, is a clustering of at least three of the five medical conditions given below (As per the guidelines of AHA American Heart association).

- Fasting glucose ≥ 100 mg/dl
- Blood pressure $\geq 130/85$ mm Hg
- Triglycerides ≥ 150 mg/dl
- HDL-C ≤ 40 mg/dl in men and ≤ 50 mg/dl in women.
- Waist circumference ≥ 80 cm in women and ≥ 90 cm in men with central obesity (Main sign of metabolic syndrome).

Often these conditions are managed by pharmacological treatment, however this is not enough in controlling this disorder. Thus, Ayurveda can play a significant role following particular conducts like dietary regulation, daily and seasonal regimen, Panchkarma and yoga therapy. Here, we will brief the role of panchkarma in controlling metabolic syndrome.

Role of panchkarma in obesity

Obesity must be described first as it is the root cause of other metabolic disorders. Central obesity is considered the main sign of metabolic syndrome. Obesity is described as 'medoroga' or 'sthaulya roga' in ayurveda. Continuous indulgence in large amounts of processed or fast food, overeating, sedentary life, lack of exercise, etc leads to increase in body fat which gets deposited.

Some of the important panchkarma procedures which can help in obesity are.

- Deep dry udwarthana with herbal powders and pastes,
- Synchronised abhyanga with specific oils, steam bath mobilises the accumulated fat whereas specially designed panchkarma procedures for detoxification clears and prevents its further accumulation.
- Vamana & virechana methods are also beneficial. Lekhana Basti which is a type of enema contains ayurvedic drugs which causes reduction of excessive fat from the body. Drugs which are used are triphala kwatha, kasis, honey, gomutra, saindhav lavana, yavakshar, shilajatu, etc. These all are fat reducing by virtue of their properties.

Role of Panchkarma in 'Diabetes'

Panchkarma, here can be advised according to the dosha and dushya involvement and specific treatment according to any complications.

- Abhyantara snehapana, abhyanga, mridu swedana vamana, virechana, basti, nasya all are beneficial Mridu swedana is indicated. Excessive swedana is contraindicated in prameha as swedana cause utkleshana (Aggravation) and vilayana of doshas which are deeply adhered to the dushyas. But in prameha, doshas are already in aggravated state so doesn't require swedana.
- Abhyanga relaxes muscles, improves circulation which further causes increased glucose absorption and the

amount of insulin required for impaired glucose level also decreases. It also open the pores, cleanses system through skin and toxins are excreted through sweat.

- As ayurveda describes prameha patients as of two types – sthula and krisha. So, in sthoola pramehi rukshana can be done which provides better relief in the signs and symptoms, fasting blood sugar, postprandial blood sugar, urine sugar, weight and BMI.
- Sarvanga udwartana is also beneficial. Teekshna rooksha udurartana is useful in obese patients.
- Dhanyamala parisheka; all these methods gives compatness and medas pravilayana.
- Vamana and virechana are mainly indicated in sthula pramehi. Most of the texts prohibit the use of vamana and virechana karma due to inability of the patient to bear the potency of medicine and therapy. But shodhana procedures have their effect as it clears avarana, srotorodha and thus brings back homeostasis.

It has been proved by several research work that vamana and virechana provides significant improvement in general condition of patients.

Basti also plays an important role. Lekhana basti is indicated in obese patients. Several basti are indicated like

- Panchprasrutika basti
- Madhutailaka basti
- Nagrodadi gana basti
- Salasaradigana basti

Anuvasana basti is mainly done with vidangodi taila, triphaladi taila.

Several panchkarma procedures are also helpful in diabetes complications. Some of them are given below

1. Neem lepa & Parisheka is beneficial in underlying skin diseases, itching, diabetic carbuncles and diabetic foot.
2. Jaluka method is helpful in prameha pidika (diabetic carbuncles), skin diseases.
3. Nasya/Murdha taila helps in diabetic neuropathy likewise, siroabhyanga, siropichu, sirodhara with either tailadhara, takradhara, kashayadhara are helpful. Several oils are used in sirodhara like mahanarayana taila, ksheerbala taila, balaashwangandha lakshadi taila, etc.
4. Pizichilli & Navarakizhi also helps in diabetic neuropathy by strengthening nerves and increases immunity.
5. Netra tarpana & aschyottan is useful in diabetic retinopathy. This can be done using triphala ghrita, maha triphala ghrita, patoladhi ghrita, jeevanthiyadhi ghrita, etc. Putpaka method is also equally beneficial. Anjanas can also be applied like chandrothaya varti anjana, nalekeera anjana, Vimala anjana, vinayaka anjana.
6. Basti karma with gokshur (Gokshuradiniruha basti) and dashmoola (Dashmooladi niruha basti) are beneficial in diabetic nephropathy patients.

Role of Panchkarma in 'hypertension

Neurological disorders (Vatavyadhi) are considered as major critical diseases in ayurveda and cured by rigorous panchkarma and palliative medicine. Over a period of time, panchkarma can bring back the lost sensation in nerves.

As per ayurveda, aggravation of pranavayu affects the normal functioning of the nervous system thereby triggering mental imbalance.

1. Shirodhara and nasya have been proved to be the most effective line of treatment to counter anxiety. They

stimulate vital centres and helps improve the pre-existing condition. Also helps in stress reduction.

2. Padabhyanga too has above advantage.
3. Uro basti helps in providing relief to chest, strengthens heart muscles. Basti is an unparalleled treatment to control vayu which is the chief causative factor for hypertension and other nervous disorders. (Shirobasti).
4. Raktamokshana (blood-letting) is also helpful. As per ayurveda, toxin accumulation is one of the cause for arterial blockage. Raktamokshana lets out the contaminated blood and relieves blocks in circulation.
5. Pizhichil which is squeezing of warm medicated oil onto the patient's body from a piece of cloth that is periodically soaked in a vessel containing medicated oil. Thus, it helps in both physical and mental relaxation.
6. Shidehara—continuous pouring of oil on the forehead stimulates and soothes the hypothalamus to induce sleep by reducing stress. (As in insomnia).

Proper management of hypertension by above methods may reduce the complications of cerebrovascular accidents (Stroke), renal failure, cholesterol deposition in arterial block, etc.

Thus, we see that Panchkarma therapies are beneficial for those who are suffering from various metabolic diseases as well as preventive measures for healthy people. Above said panchkarma procedures increase the self-healing power of the body and purifies body from within.

We can also see from above that panchkarma is particularly useful in chronic metabolic or stress-related diseases. It balances the doshas, bringing them back to equilibrium and thus the individual back to good health.

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