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Review Article

EVIDENCE BASED MEDICINE OF LIFESTYLE DISEASES W.S.R TO PANCHAKARMA

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ABSTRACT

With rapid economic development and increasing westernization of lifestyle in the past few decades prevalence of lifestyle diseases has reached alarming proportions among Indians in the recent years. Ayurveda the science of life, describes the management of lifestyle diseases in the forms of proper dietary and behavioral management (dinacharya and rtucharya), panchakarma procedures, medicaments, and rejuvenation therapies. The paper reviews some of the reported research works on panchakarma therapy in the management of lifestyle diseases.

Keywords: Lifestyle diseases, Panchakarma, Vamana, Virechana, Basti, Nasya

INTRODUCTION

Lifestyle diseases characterize those diseases whose occurrence is primarily based on the daily habits of people and are a result of an inappropriate relationship of people with their environment. The main factors contributing to lifestyle diseases include bad food habits, physical inactivity, wrong body posture, and disturbed biological clock. The onset of these lifestyle diseases is insidious, which take years to develop, and once encountered may not be amenable for complete cure¹. Lifestyle diseases (also sometimes called diseases of longevity or diseases of civilization interchangeably) are diseases that appear to increase in frequency as countries become more industrialized and people live longer. They can include Alzheimer's disease, arthritis, atherosclerosis, asthma, some kinds of cancer, chronic liver disease or cirrhosis, chronic obstructive pulmonary disease, Type II diabetes, heart disease, metabolic syndrome, chronic renal failure, osteoporosis, stroke, depression and obesity².

Ayurveda denoted the components of lifestyle measures in the forms of proper dietary and behavioral management (dinacharya and rtucharya), panchakarma procedures, medicaments, and rejuvenation therapies. The five therapies which are used for bio purification or detoxification of body are collectively known as Panchakarma. Aushadha (therapy) is, in brief, of two kinds Shodhana and Shamana³. Shodhana is the method of eliminating the aggravated dosha from the body forcibly, thus purifying it. Shamana, on the other hand, is to mitigate the aggravated doshas within the body itself⁴. The five-detoxification/purification measures according to Charaka, Sarangdhara⁵ and Bhavmishra are Vamana (emesis), Virechana (purgation), AsthapanaBasti/ Niruha Basti, Anuvasana Basti/ Sneha Basti (enema) and Nasya (errhines). On the other hand Sushruta and vaghbhata⁶ describe Raktamokshana (Blood Letting) as the fifth sodhana therapy (panchasodhana).

Vitiated Dosha is the basic factor in the manifestation and progress of any disease. Panchakarma therapy, aims at the elimination of vitiated Doshas from the body so that the disease could be prevented or if the pathology has already established, it can be treated in the most effective manner. In recent past some studies have been conducted to standardize some of the panchakarma therapies. For Vamana karma the mucopolysacchride content of the vomitus could be taken as a standard marker for estimation of the elimination of kapha dosha. Estimation of blood histamine levels before and after vamana therapy serves as another marker. Histamine levels will be low after vamanakarma. For virechana karma rate of elimination of stercobilinogen in the faeces can be taken as an index of elimination of Malapitta during virecana. For assessing the long term benefits of vamana and virechana karma, Immunoglobulins IGg levels before and after therapy, reduction in free radicals by evaluating serum SOD (Super oxide dismutase analysis), changes in neuroendocrine hormones, Thyroid profiles, ACTH, Androgens and insulin levels can be measured. D- xylose excretion test is a biomarker denoting the improved absorption pattern after Samsodhana karma. The excretion pattern of D-xylose, has increased after samsodhana and samsarjana procedure which indirectly signifies the improved state of absorption of GIT tract⁷. The observations recorded in certain researches with panchakarma therapy for certain life style diseases are reported below.

Ayurvedic classics, journals and internet publications are thoroughly reviewed for compiling the relevant data reported about panchakarma therapy.

Bronchial Asthma

In a study to evaluate comparative efficacy of Samshodhana and Samshamana Chikitsa, in 24 patients of Tamaka Shwasa, thirteen patients (Group A) were treated with Samshodhana, particularly with Virechana Karma, and 11 patients (Group B), were treated only with the powder of dried ripe fruits of Badara.

The patients of group A received Abhyantara Snehana with Tila Taila followed by Bahya Snehana with Tila Taila and Saindhava Lavana. After observations of proper signs of Snehana; Virechana Karma was performed with Aragvadhaphalamajja. Samsarjana Krama was followed for five days. Subsequently all the patients were given the trial drug (powder of Badara). In both groups, the dose of Badara powder was 5 g, twice a day, with lukewarm water, for a period of 60 days. In group A, maximum number of patients (61.45 %) showed good response, while in group B, 45.45 % patients showed good response⁸

In another study Sodhana chikitsa (Snehana, Swedana, Vamana, Virechana) given to patients of chronic asthma associated with severe breathlessness chest congestion and cough showed significant result⁹.

Cardio vascular diseases

A single blinded controlled study has been conducted to evaluate efficacy of ooshakadi lekhana basti on 45 patients randomized into three groups each containing 15 patients. The control drug was atorvastatin. Average mean reduction of lipids were found statistically significant ($p < 0.05$) in the experimental groups over control group in all types of lipids except HDL which has presented increase pattern¹⁰.

Hypertension

A randomized open clinical trial on 33 uncomplicated subjects of essential hypertension was conducted. The subjects were allotted in two groups, viz. (Group A) Virechana group having 16 cases who underwent Virechana Karma by Trivrita, Aragvadh, Eranda Taila, and Draksha Kwatha as Sahapana; and (Group B) Basti group consisting of 17 cases who were administered Dashmoola Kala Basti in which Niruha with Dashmoola Kwatha and Anuvāsana with Dashmoola Taila was done. Patients of both the groups were followed by Shamana Chikitsa (Arjunadi Ghanavati). The overall effect of the therapies on systolic and diastolic blood pressure showed that Virechana proved better relief (43.75%) as compared to Basti (29.41%).¹¹

A clinical trial was conducted to evaluate the efficacy of Shirodhara and Sarpagandha Vati in essential hypertension. A total 47 patients were selected for study, out of which 40 patients (20 in each group) completed the course of treatment. Study subjects were randomly allotted into two groups, with one group being treated with Shirodhara and the other with Sarpagandha Vati. Specialized Ayurvedic rating scales like Manasa Pariksha Bhava as well as the Hamilton Anxiety Rating Scale were adopted to assess the effect of therapy. The effects of treatment on the chief complaints and the associated complaints were also evaluated. The results in the Shirodhara group were better than that in the Sarpagandha group. Although both Sarpagandha Vati and Shirodhara helped in reducing systolic and diastolic pressures, the effect of Shirodhara was more marked¹².

Diabetes Mellitus (Madhumeha)

A comparative study was planned to compare the efficacy of vamana & virechana in controlling blood sugar levels in patients with Diabetes Mellitus. Although none of them were completely able to control blood sugar in the long-term, the study shows some very interesting results in reducing the blood sugar levels which could be useful in the future studies related to DM¹³.

The study was planned to evaluate the effect of Gokshura Punarnava Basti in the management of microalbuminuria in DM (Madhumeha). Eligible diabetic patients with urine albumin excretion between 30 and 300 mg in 24 h were randomly divided into two groups. Asthapana Basti (decoction enema) of Gokshura and Punarnava Kwatha (decoction), Kalka (paste), Taila (medicated oil), Madhu (honey), and Saindhava (rock salt) for 6 consecutive days and Anuvāsana (unctuous enema) of Gokshura Punarnava Taila on 1st and 8th day by traditional Basti Putaka method was given in study group. Tablet Enalapril 5 mg, twice daily for 30 days was given to the patients in control group. The primary outcome measures were percentage change in the presenting complaints of diabetes, urine, microalbumin, Blood Sugar Level (BSL), and Blood Pressure (BP). Enalapril showed 33.33% improvement, where as Gokshura Punarnava Basti showed 79.59% improvement in the presenting complaints of diabetes, urine, microalbumin, BSL and BP. Gokshura Punarnava Basti has shown superior results in the management of microalbuminuria in DM as compared to control drug¹⁴.

Peptic Ulcer

A study was conducted to find the effect of sodhana chikitsa for chronic patients of peptic ulcer who did not respond to shamana treatment and the cases with associated symptoms are of vata aggravation like abdominal pain etc. Indukanta ghritha was given for snehana. The treatment consists of Snehapana, Swedana, Virechana, Samsarjana and Shamana. Snehapana done for a maximum of 7 days or till Samyak snigdha lakshana are seen. Bashpa sweda was given for 3 days. Virechana given with eranda thaila on 11th day followed by samsarjana karma for 3 days, Shamana medicines as per requirement were prescribed after sodhana¹⁵.

In peptic ulcer with chronic ulceration and pitta dominated symptoms such as sour eructation, regurgitation, heart burn etc were considered for inclusion criteria to conduct sodhana. Sodhana was done to evaluate the effect on peptic ulcer disease. Mahathiktaka ghritha snehana was given. The treatment consists of Snehapana, swedana, virechana, samsarjana and shamana. Snehapana done for a maximum of 7 days or till Samyak snigdha lakshana were seen. Bashpa sweda given for 3 days. Virechana given with eranda thaila on 11th day followed by samsarjana karma for 3 days, Respective shamana medicines as per requirement started after this¹⁶. In both these studies the patients showed improvement in symptoms of peptic ulcer.

Rheumatoid Arthritis (Amavata)

118 patients of Amavata were randomly divided into two groups. The patients in group A (50 patients) were given Matra Basti with Brihat Saindhavadi Taila along with Vatariguggulu; the patients in group B (53 patients) were given only Vatariguggulu. All the patients responded favorably to the treatment in both the groups; however, patient treated with Matra Basti had better relief in most of the cardinal signs and symptoms of the disease¹⁷.

In a clinical study, 12 patients of clinically proven Amavata (Rheumatoid Arthritis) were treated with Panchamuladi Kaala Basti to evaluate its efficacy. All clinical Ayurvediya nidandhi parameters and American Rheumatism Association guidelines for Rheumatoid Arthritis were followed. Results obtained are encouraging and indicate the efficacy of Panchamuladi Kaala Basti over Amavata (Rheumatoid arthritis), exploring many aspects of this clinical entity¹⁸.

Clinical evaluation of the efficacy of vamana karma was done in case of chronic Amavata patients, who are not responding to conservative medicines. Treatment consisted of Deepana, pachana, snehana, swedana, vamana and samsarjana karma. The treatment showed significant effect¹⁹.

Osteoporosis

In a clinical trial 12 patients treated with Majja Basti along with Asthi Shrinkhala pulp capsules showed significant result.²⁰

Osteoarthritis

In a study, 30 patients of Sandhigata Vata were given Anuvasana Basti with Ksheerabala Taila. Subjective assessment of pain by visual analog scale and swelling, tenderness, crepitus and walking velocity were graded according to their severity. Significant results ($P < 0.05$) were found in all the cardinal symptoms – Pain (Sandhiruja), Swelling (Shotha), tenderness, crepitus and walking time. Radiological findings showed no significant changes. Anuvasana Basti with Ksheerabala Taila was significant in the subjective symptoms of Sandhigata Vata²¹.

Liver disorders

Cold infusion of fruit of *Luffa echinata* (commonly called Devadali Phala Nasya) is given through nasal route once or twice a day along with decoction of some polyherbal compounds. The herbo-mineral drug not only proves to be highly effective in controlling Hepatitis induced jaundice, but also helps in reducing Bilirubin, Alkaline Phosphatase in liver function test besides reducing Hepatomegaly (enlargement of liver)²².

DISCUSSION

Every individual constitution has its own unique balance of the three doshas vata, pitta and kapha. This balance of doshas indicates the healthy state of the body. When this balance is disturbed, it engenders diseases. The wrong diet, habits, lifestyle, incompatible food combinations, seasonal changes, repressed emotions and stress factors can all act either together or separately to change the balance of vata, pitta and kapha. According to the etiological factors, vata, pitta or kapha undergo vitiation, leading to hypofunction of the agni (energy responsible for digestive and metabolic processes) and as a result it produces ama (improperly metabolized toxic component). This ama being sticky in nature blocks the circulating channels (srotas) thereby preventing nourishment of the tissues by the nutrient fluids. This ama gets mixed up with the doshas to cause different morbidities. The further production of ama, can be curtailed by adopting modified lifestyles and various panchakarma procedures.

Panchakarma therapy aims at the elimination of excessive Doshas from the body to maintain the state of health for a longer duration. Before the actual operation of purification begins, there is a need to prepare the body with prescribed methods to transport the mala (metabolic residue) towards the koshta (intestines). Snehana (oleation) and svedana (fomentation) are prescribed for this purpose as prerequisite procedures. Ama is sticky material which remains adhered to the tissues of the channels. It is necessary that stickiness of this ama should be loosened and adherence has to be removed before the morbid material could be eliminated. This is done with the help

of oleation (snehana) and fomentation (svedana) therapies. These are called purva-karmas (preparatory therapies).

Vamana is a procedure in which Doshas (waste products or toxins) are eliminated through upper channels i.e. mouth. Specially the Kapha and Pitta Dosha brought to Amashaya (stomach and duodenum) from all over the body by the specific preoperative procedures and then eliminated by inducing the emesis. Therapeutic vomiting is indicated in chronic asthma, diabetes, chronic cold, lymphatic congestion, indigestion and oedema. Virechana is one of the Panchakarma therapies where in purgation is induced by drugs and it specifically aims at the elimination of excessive Pitta Dosha from the body. It is indicated mainly in patients suffering with hemorrhage from the upper parts of the body, poisoning, chronic jaundice, various gastrointestinal tract disturbances, asthma, skin disorders, epilepsy, insanity, and other pitta disorders. Basti (Asthapana & Anuvasana) is described for diseases with imbalanced Doshas having predominance of Vata or for diseases with Vata imbalance alone. Basti is advised in tumors of the abdomen, bloating, disease of the spleen, urinary calculi etc. Administration of drugs by the route of nasal cavity is termed as nasya. Nasyakarma alleviates diseases like cervical spondylitis, headache, facial paralysis, hemiplegia, diseases of nose, frozen shoulder, sinusitis, mental disorders, and Parkinsonism and skin complaints.

Virechana is the main treatment indicated in tamaka swasa. Researches showed the effectiveness of virechana and vamana karma in the management of bronchial asthma. Review indicates the utility of Vamana, Virechana and Basti karma in the management of diabetes mellitus. Basti and virechana were found useful in controlling hyperlipidemia and hypertension. All these suggest the usefulness of panchakarma therapy in the management and prevention of cardiovascular diseases. Application of Bastikarma was found to be effective in managing conditions like osteoarthritis, rheumatoid arthritis and osteoporosis. Nasyakarma was found useful in reducing hepatomegaly and jaundice due to viral hepatitis.

Timely intervention of the panchakarma therapy with appropriate medicaments, helps in the management and prevention of most of the lifestyle diseases. A proper implication of principles of Ayurvedic therapeutics not only helps to prevent lifestyle disease but also facilitates for control of lifestyle diseases. Susruta suggested a herbomineral formulation namely 'Navayasa' to prevent certain lifestyle conditions like deposition of visceral fat (Jatara), Agnimandya (anorexia), Arsha (piles), Sopha (oedema), Pandu (Anemia), kushta (skin diseases), Avipaka (dyspepsia), Kasa (bronchitis), Swasa (dyspnoea) and Prameha (urinary diseases including diabetes mellitus).

CONCLUSION

Panchakarma procedures are meant for purification of the body which are helpful for management of certain chronic and lifestyle disorders and they are an important and integral constituent of Ayurvedic line of treatment. More and more research works are to be carried out to explore the scientific basis of panchakarma therapy and create a better understanding of its usefulness in lifestyle disorders.

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