



Research Article

A CLINICAL STUDY TO EVALUATE THE EFFECT OF SIDDARTHAKA YOGA AS KWATH, LEPA & VIRECHANA KARMA IN THE MANAGEMENT OF EKKUSHTHA WITH SPECIAL REFERENCE TO PSORIASIS

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ABSTRACT

This clinical study was done in thirty cases of Ekkushtha of more than one year duration to evaluate the effect of Siddarthaka yoga as kwath, lepa & virechana karma in Ekkushtha with special reference to psoriasis with an aim to provide an effective management. For assessment, a special research Performa was prepared for the study incorporating all the relevant points from both Ayurvedic and Modern views. Criteria for diagnosis were done on the basis of sign and symptoms available in the texts. Haematological analysis - CBC, ESR, Hb %, Routine and Microscopic examination of Urine and Stool and some Biological examinations- Blood sugar, S. Cholesterol were carried out to exclude the possibility of any other disease as well as to know the present condition and diagnosis of the patients. Patients with Seborrhoeic dermatitis, Lichen simplex chronicus, Dermatomyositis and Eczema were excluded from the study. In Group A patients treated with oral administration of Siddarthak kwath 100 ml before meal and Siddarthak lepa as external application twice daily for 3 months had mild improvement 13.33%, moderate improvement 46.66%, marked improvement 40%. In Group B patients treated with Siddarthaka yoga as virechana karma after samyaka snehana and swedana karma. It was done once a month for consecutive 3 months had mild improvement 6.66%, moderate improvement 33.33% and marked improvement 66.66%. This study suggests that there is marked effect of shodhan karma over the shaman karma.

Keywords: Siddarthaka yoga, Ekkushtha (Psoriasis), Kwath (Decoction), Lepa (External application), Virechana karma.

INTRODUCTION

Ayurveda is a holistic system that uses a constitutional model. Its aim is to provide guidance regarding food and life style so that healthy people can stay healthy and those with health challenges can improve their health. Ayurveda is mainly a bio energetic and bio spiritual system. However it integrates a biochemical understanding of healing. Through the biochemical system we can understand the natural world through different eyes. Disease, many a times is not a direct contrast to health and much less super added factor to the living organism, but they rob its joys and pleasures creating great deal of miseries, like skin diseases. Approximately 15% of all patients who visits the doctors to do for care of the skin as the wise saying “skin patients never cured and never die.”

Ayurveda has dealt with the disease in all its aspects elaborately. The description of the symptoms of disease depends upon Dosh-Dushya Sammurchana and its effect on srotas and predominance of Dosh and Dushya. In Ayurveda, all skin diseases have been described under the umbrella of kushtha. They are further classified into Mahakushtha and Kshudra Kushtha. Acharyas have described that all Kushthas have Tridoshic involvement but the type of Kushtha depends on the predominance of particular doshas. Acharya Charak has described the involvement of Vata-Kapha in Ekkushtha. In the present study Ekkushtha is compared with psoriasis due to its maximum resemblance with it.

The disease is described in Charak Samhita after Prameha. It indicates that Kushtha is a Santarpanajanya Vyadhi. Thus, it is understood that the aetiology and pathogenesis of kushtha is that of santarpanajanya vyadhis.

It is ideally said that –“Kushtha Dirgharoganam”. It clearly shows the chronic nature of the disease¹. Only in Bhavprakash, it has been

commented that Ekkushtha has been named so, to stress its importance among kshudra kushtha.

“Ekkushtham iti kshudra kushthashu mukhyatwat” (B.P. Madhya – 54/24) Kushtha is produced invariably by the vitiation of the seven factors i.e. 3 Doshas and 4 Dushyas. But different types of pain, colour, shape, specific manifestation etc. are found in Kushtha because of Anshanshakalpana of the Doshas. Accordingly Charaka, Kushthas are in fact of innumerable types, but for systemic study they are classified into two major groups 7 Maha Kushtha and 11 Kshudra Kushtha.

Psoriasis is the oldest recorded skin disease. It is one of the most intriguing and perplexing disorder of skin. Psoriasis is a chronic relapsing diseases of unknown aetiology characterized by sharply defined dry scaling erythematous patches, covered with adherent silvery white scales. The eruption is usually symmetrical and most commonly affects elbows, knees, scalp, nails and the sacral regions².

The exact aetiology is still unknown. It tends to run in families and is precipitated by climate, Streptococcal infections etc. Psoriasis appears to be largely a disorder of keratinisation. Males and females are equally predisposed and all age groups are affected. Psychological stress is emphasized as one of the major triggering factor in the exacerbation of the disease³.

Remissions and exacerbations are the rule in most of the psoriatic cases but some patient remains relatively unchanged for years after the onset of the disease.

Psoriasis is an incurable disease. But treatment gives temporary relief. The choice of treatment to be adopted for psoriasis depends on many factors like extent and type of Psoriasis, psychological condition of the patients, health status of the patient, previous treatment and age

of the patient etc. In some cases it may be solely topical, or it may be systemic or a combination of both.

Modern medical science treats psoriasis with PUVA and corticosteroids. But the therapy has serious side effects like liver and kidney failure, bone marrow depletion etc.

Hence it is the need of time to find out safe and effective medicine for Psoriasis and here the role of Ayurveda comes. There are many research works have been done to re-establish and prove the treatment described in Ayurvedic texts in different directions. The unique treatment modality of Ayurveda provides long lasting results and a better life to patients through its three basic principles of treatment i.e. Shodhana, Shamana and Nidana parivarjana⁴. Ayurveda, the science of life is time tested science. It's all principles are universally applicable to each individual to have a long healthy life. In this connection, the present study has been taken to evaluate the effect of certain medications mentioned in Charak samhita for the treatment of skin disorders.

Among the various drugs mentioned for Ekkushtha in Ayurveda, Siddharthaka yoga⁵ includes Musta, Madanphala, Amalki, Vibhitaki, Haritaki, Karanja, Aragvadha, Indrayava, Daruharidra and Saptaparna was specifically selected for the study because all the drugs have been described in management of Kushtha

At various places in all the three great treatise of Ayurveda as well as in nighantus. Ek -kushtha is a disease of a nature of chronicity, remissions and relapses so the importance of sanshodhana⁶ along with shamana⁷ therapy is found to be more helpful in the treatment of this ailment. Keeping this view in mind the Siddhrthaka yoga as Kwatha, Lepa and Virechana was selected for the trial.

Musta (*Cyperus rotundus* Linn, Family-Cyperaceae)

In India this plant is variously known as Nut grass. This plant is widely distributed all over India, throughout the year especially in rainy season.

For medicinal purposes, all parts of plant such as leaf, stem and root are used. Musta preparations have been used to treat Cold, flu, malabsorption, fever, indigestion, colic, blood disorders. 0.5-0.9% of essential oils like amphenone, cyperol, rotundone used as Anthelmintic, anti inflammatory, carminative, stomachic, diuretic and emmenagogue. They are well known powerful antioxidants that scavenge free radicals, promote dermal fibrosis.

Madanphala (*Randia dumetorum* Lam, Family- Rubiaceae)

This plant is commonly called as Emetic Nut, Bushy Gardenia. For medicinal purpose all parts of plant such as bark, leaves, flower, fruit and seeds are used. It's preparations have been used as thermogenic, anodyne, carminative, antiinflammatory, anthelmintic, expectorant, abortifacient and antispasmodic. It is useful in pains, sprains, inflammation, gout, helminthias. It is one of the best and safest emetic. Six Saponins Dumetoronins and a new glycoside i.e. Randioside A used as antiinflammatory, antiovolatory, anticancer, insecticidal, antibacterial, antifungal, antiviral, antipyretic, antifertility, cardiac stimulant or depressant, Hypotensive or CNS depressant and anthelmintic.

Amalki (*Emblica officinalis*, Family- Euphorbiaceae)

This plant is commonly called as Emblic myrobalan, Indian gooseberry. A good source of Vit. C, carotene, nicotinic acid, riboflavine, D glucose, D- Fructose, myoinositol, and a Rectin with D-galacturonic acid two growth inhibitor R1 and R2; phyenbic acid and phyllembin (Fruits). The fruits are astringent, cooling anodyne carminative, digestive. Seeds are reported to be useful in hepatic disorder, asthma and strong antibacterial but moderate antifungal activity.

Haritaki (*Terminalia chebulla*, Family- Combrataceae)

This plant is commonly called as Myrobalans, Chebulic

Myrobalans. Anthraquinone, glycoside, chebulinic acid, chebulagic acid, tanic acid, terchebin, tetrachebulin, Vit-C, arachidic, behenic, linoleic, queicc, palmitic and stearic acid (fruit kornel) chebulin(flowers) provide antimicrobial, antifungal, antibacterial, antistress, antispasmodic, hypotensive, indurance, promoting activity, anti-hepatitis-B virus activity, hypolipidaemic, inhibitory activity against HIV-I protease, anthelmintic purgative activity. Fruits are astringent, sweet, acrid, bitter, sour, thermogenic, antiinflammatory, vulnerary, alterant stomachic, laxative, purgative carminative, digestive, anthelmintic, dentrifice, cardi tonic, aphrodisiac, antiseptic, diuretic, febrifuge, depurative and tonic. They are useful in wounds and ulcers inflammation, skin disease, leprosy, hyperactivity and associated gastric disorders.

Vibhitaki (*Terminalia belerica* Roxb, Family- Combretaceae)

This plant is commonly called as Beleric Myrobalans, Beddanut. Beta- sitosterol, Gallicacid, ellagic acid, chebulagic acid, galloyl glucose and a number of free sugars have been isolated from the plant and a new glycoside named bellericanin have astringent, anti-inflammatory, anodyne, antiseptic, digestive, carminative, antidysentric activity and useful in skin diseases, leucoderma, pruritis and ulcers.

Karanja (*Pongamia pinnata*, Family- Fabaceae)

This plant is commonly called as Indian Beech. Karanjin, pongapin, 3methoxypongapin, pongaglabrone, kanjone, pongol have Antibacterial, antifungal, hypoglycaemic effect, altered lipid metabolism and fatty infiltration in liver etc. It is also helpful in Dadru, Pama, Vicarchika, Visarpa, Parisarpa etc.

Aragvadha (*Cassia fistula*, Family- Caesalpiniaceae)

This plant is commonly called as Indian Laburnum. It contains mucilage, pectin, hydroxyl methyl anthraquinones and large properties of sugar. The pulp contains of sugar 60% mucilage, astringent matter, glutton, colouring matter, pectin, calcium oxalate and ash. It is cathartic, laxative, blood purifier, febrifuge, emollient and diuretic, antipyretic. It is used in flatulence, anorexia, jaundice, hepatomegaly, abdominal pains, joints pain, pruritus, leprosy, applied skin infections, blood coagulation disorders and dysuria.

Kalingyava (*Holarrhena antidysentrica*, Family- Apocyanaceae)

This plant is commonly called as Tellicherry Bark. Conessidine, connessimine, conkurchine, holadiene, kurchine, holaarrhine, kurchicine, holadysine, holadysamine, holantosines, kurchaline, kurchiphyllamine, holacetine etc. have action on Amoebic dysentery and also act as antispasmodic, hypotensive, antiinflammatory, cytotoxicity etc.

Daruharidra (*Berberis aristata*, Family- Berberidaceae)

This plant is commonly called as Indian berberry. The root has 2-3% Berbrine other- oxyberbrine, berbamine, karachine, palmative, oxycanthine, taxilamine, used as anticancerous, anticoagulant, gastroirritant, antipyretic, local anaesthetic, antiprotozoal, antibacterial, anti-inflammatory and CNS depressant. It is also act as deepana, grahi, shothahara, vedana sthapana, vranashodhana, ropana, kandughna and rakta shodhaka.

Saptaparna (*Alstonia scholaris*, Family- Apocynaceae)

This plant is commonly called as Dita. Its leaves contains picralinol, an indole alkaloid-picrinine, betulin, ursolic acid, pseudoakuummagine, B-sitosterol and new alkaloid scholarin. It's stem bark contains echitamine, new glucoside venoterpine, glucoside triterpenes, alpha amyryl acetate and lupeul acetate have antimicrobial, antimalarial, CNS depressants (picrinine). Stricamine showed monomine oxidase inhibitory as well as antidepressant activities. The bark is bitter, astringent, acrid, thermogenic, digestive, laxative, antihelminthic, febrifuge, antipyretic, depurative, galactogogue, stomachic and cardio tonic. It is used in malaria, abdominal disorders, diarrhea, dysentery, dyspepsia,

leprosy, skin diseases, pruritus, tumours, chronic and foul ulcers, asthma, bronchitis, cardiomyopathy, and helminthiasis.

MATERIALS AND METHODS:

Collection and Preparation of drugs

All the drugs were procured from the Pharmacy of Prabhat Herbals, Industrial Area, Haridwar as well as Rishikul State Ayurvedic P.G. College, Haridwar. All the 10 crude drugs were taken in equal proportion as yava kutta churna (coarse powder) and fine powder was prepared by the pharmacy of Prabhat Herbals.

Drug administration

The drug administered in two ways-

a)The prepared drug was used both externally as well as internally. For internal use, the drug used as kwath form (100 ml) twice daily. All the 10 crude drugs were taken in equal proportion as coarse yava kutta churna and were made into a decoction with by adding 8 times of water and kwath is formed by classical method. Then formed decoction was administered twice a day in lukewarm form for 3 months.

Note-When kwath remains one fourth then it was used for internal administration because all the mentioned ingredients of Siddarthaka kwatha are mridu dravya.

For external use, patients were instructed to apply the powder mixed with plain water over the lesion after taking a thorough bath.

b)The patients of group B were given VIRECHANA chikitsa. Before Virechana karma, the patients were advised to take snehana with panchatikta ghrita⁸ followed by swedana.

Design of study

Patients were selected from the O.P.D and I.P.D of Rishikul State Ayurvedic P.G. College, Haridwar irrespective of sex and religion. Patients were randomly divided into 2 groups for study. Total 35 patients were registered; among them total 30 patients were completed the course of treatment.

Selection of patients

As per the Proforma, detailed history, clinical examinations and investigations were done and recorded after enrolment of patients according to inclusion and exclusion criteria.

The patients were divided into two groups. In group A, patients were orally administered with Siddarthak yoga as kwath 100 ml before meal and lepa (externally) twice daily for 3 months. In group B, patients were administered with Siddarthak yoga as virechana karma after samyak snehana and swedana karma. It was being done once a month for consecutive 3 months.

Inclusion criteria

Those patients fulfilling the criteria of Ekkushtha having age between 18– 60 years and chronicity between 6 weeks to 10 years with not less than 30% involvement of body surface.

Exclusion criteria

Patients with Seborrhoeic dermatitis, Lichen simplex chronicus, Dermato- myositis, eczema and less than six weeks duration were excluded from this study.

Follow up

Patients were followed up at one month interval and the disease was examined. Findings were recorded as in the Proforma. The follow up

of the patients during the treatment were done after 30 days of interval in total duration of trial of 3 months.

Assessment criteria

During the process of treatment, two parameters for assessment were used which are subjective and objective parameters.

Subjective parameters includes matsyashakala (scaling), mandala (erythema) kandu (itching), bahalatva (epidermal thickening), aswedanam (anhydrous), rukshata (dryness), daha (burning sensation), srava, unnati, joint involvement, jwara, pitting oedema, sleep, candle grease sign, auspitz sign, koebner's phenomena.

Objective parameters includes examinations like Hemoglobin, TLC, DLC, CT, BT, ESR and biochemical examinations like FBS, S.cholesterol, S.triglycerides HDL, S.calcium, S. total protein, S.uric acid.

Statistical analysis

All the observations were tabulated and interpreted in terms of percentage, mean, median and standard deviation to test the significance of association and difference of mean, standard t-test, chi-square test, one way Anova and Post Hoc test had been applied.

OBSERVATION & RESULTS

Thirty five patients registered for the study but only thirty patients completed follow up, so rest of five patients were excluded from this study.

Observation & results of present study are as follows

Demographic profile

Age-wise distribution of patients (Table 1)

This study shows that maximum number of patients (40%) belong to age group of 31-40 yrs., followed by 26.66% patients to 41-50 yrs age group, 20% patients belonged to age group of 21-30 yrs. ,6.66% patients belongs to 11-20yrs and 51-60 yrs.

Sex wise distribution of patients (Table 2)

Most of the subjects were male 23 (77.66%) and females⁹ were only 7 (23.33%).

Socio-economic status wise distribution of patients (Table3)

Most of the patients 14 (46.66 %) belong to middle class. 6 (20%) were from poor class, 5 (16.66%) from very poor class of the society. The remaining patients 1 (3.33%) were rich.

Habitat wise distribution of patients (Table 4)

Patients from rural area were more 20 (60.66%) than from urban area 10 (33.33%).

Occupation wise distribution of patients (Table 5)

Maximum number of patients 8 (26.66%) were housewives and farmer, followed by 5 (16.66 %) doing business, 4 (13.33%) were labourer and service man and 1(3.33%) were students.

Types wise distribution of patients (Table 6)

14(46.66%) patients have suffered from Plaque variety, 11 (36.66%) patients of Erythro- dermic, 4 (13.33%) patients of Guttate variety of psoriasis & 1(3.33%) patients of Pustural variety.

Dietary pattern of patients (Table 7)

Maximum patients 18 (60%) were doing vishamashana followed by 10(33.33%) doing shamashana and 2(6.66 %) doing adhyashana.

Nidana (aetiology) reported by patients (Table 8)

In maximum no. of patients i.e. 90% Manasika nidana was noted, 83.33 % were taking Viruddha ahara, Garishta ahara were being

taken by 70% of patients followed by mithya ahara taken by 63.33% of patients. 54.28% and in 26.66% of patients taken asatmya ahara was noted.

Agni wise distribution of patients (Table 9)

13(43.33%) patients were of samaagni, 7(23.33%) were of vishmaagni, 5 (16.66%) patients were of tikshagni and mandagni.

Koshtha wise distribution of patients (Table 10)

Maximum number of patients of this series were of krura kosktha 15 (50%), followed by madhyama kosktha 9 (30%) and mridu kosktha 6 (20%).

Chronicity wise distribution of patients (Table 11)

Maximum 17(56.56 %) patients were having > 1 year chronicity, followed by 6(20%) were having >5 years chronicity and 5 (16.67%) patients were having chronicity of > 10 years.

Chief complaints reported by patients (Table 12)

Scaling, itching, mandala and aswedanam was found in 30 (100 %) patients while Rukshata (Dryness) and Unnati and Bahalatva was found in 25 (80%) of patients, Daha was found in 24(76.66%) of patients, while sraava in 23(63.33%).

Associated symptoms reported by patients (Table 13)

Nidranasha was present in 23(76.66%) patients of this series. Pitting oedaema was in 27(90 %) and Sandhishula was found in 21(70%) of patients. Jwara was found in 15(50%) of patients.

Signs of Psoriasis found in patients (Table 14)

The Candle grease sign was present in 27(90%) patients followed by Auspitz sign 23(76.66%) and Koebner's phenomena in 13(43.33%) of patients.

Percentage of skin area involved reported by patients (Table 15)

Maximum no. of patients 11(36.66 %) were having an area involvement of 91-100.

Samyaka snigdha lakshana observed in patients of Group B (Table16)

Adhastat sneha darshan was observed on an average 5th day of snehapana and snehaudagar, sneha dwesha, snigdhaagata, diptoagni on 5th, 4th & 2nd day of snehapana respectively.

Virechana Suddhi Lakshanas wise distribution of patients (Table17)

Maximum no. of patients 8 (53.33 %) had seen madhyam suddhi followed by 4(26.66%) pravara suddhi while 3(20%) patients were avara suddhi in Virechana.

Effect of therapies on symptomatology score (Table 18)

Effect on Matsya Shaklopama

In group a, out of 15 patients, observed % relief was 61.70%, t- value was 4.08 and p-value was < 0.001 and in group b, out of 15 patients, observed % relief was 86.67%, t- value was 10.2 and p-value was < 0.001. Matsya Shaklopama means fish like scales which is characteristic feature of Ekkushtha. It occurs due to vitiated Vata which causes rukshata and kharata. Siddharthaka yoga mainly contains Kushthagna and Rasayana drugs which may act at the cellular level and prevent their overproduction.

Effect on Raga

In group a, out of 15 patients, observed % relief was 63.41%, t- value was 4.84 and p-value was < 0.001 and in group b, out of 15 patients, observed % relief was 89.36%, t- value was 10.69 and p-value was < 0.001. Severe itching may lead to raga which may be due to Pitta and virechana karma leads the shaman of pitta.

Effect on Kandu

In group a, out of 15 patients, observed % relief was 67.34%, t- value was 4.80 and p-value was < 0.001 and in group b, out of 15 patients, observed % relief was 87.75%, t- value was 12.12 and p-value was < 0.001. As these drugs have Kaphavata shamaka property and causes relief in kandu. Virechana has Pitta Shodhaka and Rakta prasadak property also it is a Buddhi Indriya Mana Prasadana property which may control pruritus.

Effect on Bahalatva

In group a- out of 11 patients, observed % relief was 78.12%, t- value was 4.18 and p-value was < 0.001 and in group b- out of 13 patients, observed % relief was 85.0%, t- value was 6.58 and p-value was < 0.001. It shows that the relief was highly significant statistically. It is due to hyperkeratization of skin. The ushna, laghu and vatakapha shamaka property may have reduced the hyperkeratization.

Effect on Aswedana

In group a- out of 15 patients, observed % relief was 66.40%, t- value was 4.77 and p-value was < 0.001 and in group b- out of 15 patients, observed % relief was 78.72%, t- value was 8.49 and p-value was < 0.001. It occurs due to obstruction of swedawaha srotas which is relieved by ushna, laghu and kapha shamak property.

Effect on Rukshata

In group a- out of 11 patients, observed % relief was 61.77%, t- value was 3.00 and p-value was < 0.001 and in group b- out of 14 patients, observed % relief was 88.63%, t- value was 11.0 and p-value was < 0.001. It can also be attributed due to the vatakapha shamak property.

Effect on Daha

In group a- out of 09 patients, observed % relief was 93.33%, t- value was 4.40 and p-value was < 0.001 and in group b- out of 14 patients, observed % relief was 86.36%, t- value was 10.71 and p-value was < 0.001. As these drugs have kaphavata shamak property and especially drugs like haritaki, vibhitaki and aaragvadhya etc are jwaraghana which ultimately help in relieving daha. Virechana corrects pitta dosha and causes relief in Daha.

Effect on Sraava

In group a- out of 08 patients, observed % relief was 86.67%, t- value was 3.67 and p-value was < 0.001 and in group b- out of 11 patients, observed % relief was 75.75%, t- value was 5.22 and p-value was < 0.001. It shows that the relief was highly significant statistically. It is due to Property of Kapha and Pitta, Virechana eliminates excessive accumulation of Kapha and Pitta & reduces Srava. Also Shamana Group reduces Srava by Tikta, Katu Rasa and Ushna Virya, Tikta Rasa has Kleda, Meda and Sweda Shoshaka property.

Effect on Unnati

In group a- out of 10 patients, observed % relief was 93.33%, t- value was 4.52 and p-value was < 0.001 and in group b- out of 14 patients, observed % relief was 75.0%, t- value was 9.05 and p-value was < 0.001. Both groups show that the relief was highly significant statistically.

EFFECT OF THERAPY ON ASSOCIATED SYMPTOMS:

Effect on Sandhi shool

In group a- out of 09 patients, observed % relief was 92.59%, t- value was 4.06 and p-value was < 0.001 and in group b- out of 12 patients, observed % relief was 85.71%, t- value was 6.48 and p-value was < 0.001. Both groups show that the relief was highly significant statistically.

Effect on Jwara

In group a- out of 06 patients, observed % relief was 76.18%, t- value was 2.94 and p-value was < 0.001 and in group b- out of 09 patients, observed % relief was 90.32%, t- value was 4.29 and p-value was <

0.001. Both groups show that the relief was highly significant statistically.

Effect on Pada shotha

In group a- out of 14 patients, observed % relief was 76.93%, t- value was 4.98 and p-value was < 0.001 and in group b- out of 13 patients, observed % relief was 80.0%, t- value was 6.63 and p-value was < 0.001. Both groups show that the relief was highly significant statistically.

Effect on Nidra

In group a- out of 10 patients, observed % relief was 76.93%, t- value was 4.98 and p-value was < 0.001 and in group b- out of 13 patients, observed % relief was 80.0%, t- value was 6.63 and p-value was < 0.001. Both groups show that the relief was highly significant statistically.

EFFECT OF THERAPY ON THREE CLASSICAL SIGNS OF PSORIASIS

Effect on Candle grease sign

In group a-out of 12 patients, observed % relief was 58.82%, t- value was 4.18 and p-value was < 0.001 and in group b- out of 15 patients, observed % relief was 76.19%, t- value was 16.0 and p-value was < 0.001. It shows that the relief was highly significant statistically. It clearly shows that Virechana have better result than Shamana therapy.

Effect on Auspitz sign

In group a- out of 11 patients, observed % relief was 64.70%, t- value was 3.55 and p-value was < 0.001 and in group b- out of 12 patients, observed % relief was 70.0%, t- value was 5.13 and p-value was < 0.001. It shows that the relief was highly significant statistically. Both groups show that the relief was highly significant statistically.

Effect on Koebner's phenomenon:

In group a- out of 05 patients, observed % relief was 37.50%, t- value was 1.38 and p-value was > 0.05 and in group b- out of 08 patients, observed % relief was 53.84%, t- value was 2.82 and p-value was < 0.001. Both groups show that the relief was highly significant statistically.

Overall effect of therapy (Table 19)

It showed that no complete remission was found in group A and group B. Marked improvement was found in 40.00 % patients in group A, in 66.66% patients in group B. Moderate improvement was found in 46.66% patients in group A, 33.33% patients in group B. Mild improvement was found in 13.33% patients in group A, 6.66% patients in group B. No patients remained unchanged in group A and group B.

DISCUSSION

Looking at the impact of psoriasis in society, it is necessary to find out effective, safe and cheap medication in Ayurveda. According to Ayurveda, all the skin disease comes under "KUSHTHA". Psoriasis is considered as one of the type of kshudra kushtha under the heading of Ekkushtha. There is no namely description available in Ayurveda which can exactly be correlated with Psoriasis. Many research workers have tried to attribute psoriasis with one or other type of Kushtha. All the workers included psoriasis under Kshudrakushtha, but while on co-relation with specific type they differed i.e. some correlated it with Kitibha and others with Sidhma or Ekkushtha. Ekkushtha is accepted as Psoriasis because the description and characteristic features of it are coinciding with description of Psoriasis than any other type of Kushtha.

In Sidhma the lesion are mostly found in Urdhvakaya (Upper portion of body) but in Psoriasis the lesion are distributed all over

the body. In Sidhma there is scaling which is like Raja (dust Particles) and Kandu also present but in Psoriasis there is scale formation and appears like the flower of Alabu and Kandu usually absent.

In Kitibha the lesions are Sukshma and Sravi (exudation). But in Psoriasis the lesions are larger and dry. Thus Kitibha and Sidhma are not correlated with Psoriasis by Charaka. But Ekkushtha have no specific classification it comes under khsudra kushtha. Among the Dosha wise symptoms of Kushtha, due to Vata- Raukshya, Parushya, Toda, due to Pitta- Raga and due to Kapha- Kandu, Shvairya, Sthairya were found in Ekkushtha, so it is clear that Ekkushtha is Vata Kapha dominant skin disease. The Doshic dominancy in the chief symptoms of Ekkushtha may be taken as Aswedanam, Matsya shakalopamam due to Vata Kapha, Rukshata due to Vata, Krishna arunavarna due to Vata Pitta, and Mahavastu, Mandala due to Kapha. Aswedanam indicate the Svedavaha Sroto Dushti or Svedakshaya Lakshan.

Siddharthaka yoga as kwath, lepa and virechana were selected to evaluate their effect on ekkushtha, because all drugs are having Kushthagna¹⁰ and Kandughna properties, less or negligible adverse effect and are palatable for the use as well.

Most of the ingredients of Siddharthaka yoga formulation having Katu and tikta rasa, Ushna virya, Katu vipaka, laghu guna and Tridoshaghana property seem to quite naturally antagonise the Ekkushtha which is Vata-Kapha pradhana vyadhi. Acharya Sushruta in Su.46 has described Lekhana and Ropana properties of Laghu guna. Lekhana property might help in management of Hyperkeratinization which leads to scaling, bahalatva and unnati. Acharya Vagbhatta¹¹ described the ushana virya has vatakaphashamak property and according to Ashtanga Hridayam¹² it has ashupaka property through which it acts quickly at minute channels. The compound preparation attributed with Agnideepak property rectifies the kha-vaigunya at srotasa level. Quick absorption of the Kwatha from the amashaya due to its Vikasi and Vyavayi properties also contribute in quickly implementing its action. Siddharthaka yoga possesses Tridoshaghana property and Srotovishodhana property therefore it clears the Avrodhatamaka Samprapti in Rasavaha, Raktavaha, Mansavaha and Swedavaha srotasa due to the vitiated Vata and Kapha as doshas Twak, Rakta, Mansa and Lasika as dushya- thus effectively mitigating the disease Ekkushtha.

The active principal of the compound can be an alkaloid and others. A number of diseases are characterized, in part, by decreased intracellular levels of cyclic AMP. These include asthma, eczema, psoriasis, angina, obesity and hypertension. Alkaloid and others primary mode of action is to increase cyclic adenosine monophosphate (cAMP) and cAMP-mediated functions and inhibits histamine release¹³.

One few clinical trials are available using forskolin in psoriasis, Ammon et al reported an improvement in symptoms of psoriasis in four patients supplemented with forskolin. The ability of forskolin to regulate cAMP levels in skin cells has been shown to have therapeutic benefit for sufferers of psoriasis¹⁴. Deepana, Pachana, Snehapana followed by Virechana is the sequential order which was followed. Deepana and Pachana was administered with Trikatu Churna which had enhanced the digestive power and also facilitated for the early digestion of Sneha. Panchatikta Ghrita was administered in Vardhamana krama. During the Snehapana kala itself, some of the symptoms were deteriorating. It had shown maximum effect on Srava, Pidika and Daha. All Acharya mentioned that Kushtha is the Raktaj Vyadhi. In all the Twaka Vikara, the vitiation of Rakta and Pitta is mentioned. Virechana Karma is taken as it acts on all Dosha in general and Pitta and Rakta in particular. For the Virechana Yoga combination of different drugs having Virechana

property were used. Virechana was performed by the combinations of drugs of Siddharthaka yoga as a Vyadhi Pratyhanika Aushadha mentioned in Kushtha Rogadhikara (Ch.Chi.7/91-92) with Erand taila which is commonly used for Virechana.

Like the burning coal removed from a house and coolness occurs within a short time, The Daha symptom in Ekkushtha was relieved in a short time by Virechana due to proper elimination of Pitta Dosha. But this karma was unable to provide complete relief in Kandu symptom. Majority of the other symptoms were also found to have relieved from Virechana.

As know that Ekkushtha is Vata Kapha dominant disease. Also there is vitiation of Rakta Dosha and psychosomatic nature of the disease stress is a main factor for manifestation of disease. Virechana Karma acts on all Dosha in general and Pitta and Rakta in particular. Due to Vata Kaphaghna property it reduces symptoms of Ekakushtha. All skin disorders there is accumulation of Kleda. Virechana has Pitta Shodhana and Rakta Prasadana property lead to Kleda Harana. Due to the Manaprasadana property it reduces stress and stress related symptoms.

Siddarthaka kwatha possesses tridosha shamak and vatanulomana properties. It mainly subsides vata dosha by virtue of ushna virya, madhura vipaka and Kapha dosha by virtue of tikta, katu rasa, ruksha, laghu guna and ushna virya.

In Siddarthak lepa, maximum drugs i.e. 50% drugs are having kaphavata shamaka property, 20% are having tridoshhara and vatashamak property respectively which directly acts on the causative doshas and also having Kushthaghna and kandughna property.

Virechana karma was found more effective to suppress the symptoms like Matasyashakala (Scaling), Mandala (Erythema), Kandu (Itching) and Aswedana (Anhydrous), while Kwath and lepa were found more effective in Symptoms like Daha (Burning sensation), Bahalatva (Epidermal thickening), Rukshata (Dryness). According to M Ashvini Kumar et al 2013, It needs to be considered that virechana karma is not only a complete answer for Psoriasis as Vamana karma, Nasya, Vasti, Rasayana and shaman but also have their role in it's management¹⁵.

This study reveals that in management of Ekkushtha, there is a prime importance of Shodhana karma and if subsequently it is followed by Shaman chikitsa i.e. oral intake of medicines and external application of drug may provide better results in this disease.

Table 1: Age wise distribution of patients

Age (years)	No. of patients		Total	Percentage %
	Group A	Group B		
11 – 20	1	1	02	6.66
21 – 30	2	4	06	20
31 – 40	8	4	12	40
41 – 50	2	6	08	26.66
51 – 60	1	1	02	6.66
61 – 70	0	0	0	0

Table 2: Sex wise distribution of patients

SEX	No. of patients		TOTAL	%
	Group A	Group B		
Male	1	13	23	77.66
Female	2	5	7	23.33

Table 3: Socio-economic status wise distribution of patients

Socio-economic Status	No. of patients		Total	%
	Group A	Group B		
Very Poor	2	3	5	16.66
Poor	3	3	6	20
Lower Middle	3	1	4	13.33
Middle	6	8	14	46.66
Rich	1	0	1	3.33

Table 4: Habitat wise distribution of patients

Habitat	No. of patients		Total	%
	Group A	Group B		
Urban	5	5	10	33.33
Rural	10	10	20	66.66

Table 5: Occupation wise distribution of patients

Occupation	No. of patients		Total	%
	Group A	Group B		
Student	1	0	1	%
Farmer	3	5	8	
Labourer	2	2	4	3.33
House wives	3	5	8	26.66
Service Man	3	1	4	13.33
Business man	2	3	5	26.66

Table 6: Types wise distribution of patients

Type of psoriasis	No. of patients		Total	%
	Group A	Group B		
Plaque	06	08	14	46.66
Guttate	02	02	04	13.33
Erythrodermic	05	06	11	36.66
Pustular	00	01	01	3.33

Table 7: Dietary pattern of patients

Diet Pattern	No. of patients		Total	%
	Group A	Group B		
Samashana	3	7	10	33.33
Adhyashana	1	1	2	6.66
Vishamashana	8	10	18	60

Table 8: Nidana (aetiology) reported in patients

Nidana	No. of patients		Total	%
	Group A	Group B		
Viruddha Ahara	13	12	25	83.33
Asatymaahara	3	5	8	26.66
Garishtha Ahara	11	10	21	70
Mithya Vihara	8	11	19	63.33
Manasika Nidana	14	13	27	90

Table 9: Agni wise distribution of patients

Agni Bala	No. of patients		Total	%
	Group A	Group B		
Samagni	07	06	13	43.33
Visamagni	03	04	07	23.33
Tikhnagni	02	03	05	16.66
Mandagni	02	03	05	16.66

Table 10: Koshtha wise distribution of patients

Koshtha	No. of patients		Total	%
	Group A	Group B		
Krura	6	9	15	50
Mridu	3	3	6	20
Madhyama	3	6	9	30

Table 11: Chronicity wise distribution of patients

Chronicity (year)	Group A	Group B	Total	%
<6 months	1	0	1	3.33
6 – 12 months	1	0	1	3.33
> 1 year	8	9	17	56.56
> 5 years	2	4	6	20.00
> 10years	3	2	5	16.67

Table 12: Chief complaints reported by patients

Chief Complaints	No. of patients		Total	%
	Group A	Group B		
Mandala (Erythema)	15	15	30	100
Matsyashakalopama(Scaling)	15	15	30	100
Rukshata (Dryness)	11	14	25	83.33
Aswedanam	15	15	30	100
Daha (Burning sensation)	09	14	23	76.66
Bahalatva(Epidermal thickening)	11	13	24	80
Sraava (Discharge)	08	11	19	63.33
Unnati (Elevation of lesion)	10	14	24	80
Kandu (Itching)	15	15	30	100

Table 13: Associated symptoms reported by patients

Associated symptoms	No. of patients		Total	%
	Group A	Group B		
Nidranasa (Disturbed Sleep)	10	13	23	76.66
Jwara (Fever)	6	9	15	50
Sandhishula (Jointpain)	9	12	21	70
Nakhdushti (nail changes)	0	0	0	0
Pitting oedaema	14	13	27	90
Palm and feet involvement	0	0	0	0

Table 14: Signs of psoriasis found in patients

Type	No. of patients		Total	%
	Group A	Group B		
Auspitz sign	11	12	23	76.66
Candle grease sign	12	15	27	90
Koebner's Phenomena	5	8	13	43.33

Table 15: Percentage of skin area involved reported by patients

Percentage of skin area involvement	No. of patients		Total	%
	Group A	Group B		
01 – 10	4	1	5	16.66
11 – 20	0	0	00	00
21 – 30	0	0	00	00
31 – 40	2	1	3	10
41 – 50	1	2	3	10
51 – 60	1	0	1	3.33
61 – 70	0	0	00	00
71 – 80	0	2	2	6.66
81 – 90	1	4	5	16.66
91 – 100	5	6	11	36.66

Table 16: Samyaka snehana duration in 15 patients of Group B

Samyaka Snehana Kala (day)	No of patients	% of patients
5 th	5	33.33
6 th	7	46.67
7 th	3	20

Table 17: Virechana suddhi lakshanas wise distribution of 15 patients

Nature of Shuddhi	No. Of Patient	Percentage
Pravara	4	26.66
Madhyama	8	53.33
Avara	3	20.0

Table 18: Effect of therapies on symptomatology score

Effect on scaling

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	15	3.13	1.12	0.73	61.70	1.83	0.47	4.08	<0.001
GROUP B	15	3.07	0.40	2.67	86.67	0.98	0.25	10.2	<0.001

Effect on erythema

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	15	2.73	0.94	1.73	63.41	1.38	0.35	4.84	<0.001
GROUP B	15	3.13	0.33	2.80	89.36	1.01	0.26	10.69	<0.001

Effect on itching

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	15	3.07	0.94	2.13	67.34	1.67	0.43	4.80	<0.001
GROUP B	15	3.26	0.20	3.06	87.75	0.91	0.23	12.12	<0.001

Effect on epidermal thickening

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	11	2.13	0.44	1.69	78.12	1.54	0.34	4.18	<0.001
GROUP B	13	2.67	0.40	2.27	85.00	1.33	0.34	6.58	<0.001

Effect on aswedana

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	15	3.20	0.93	2.27	66.40	1.54	0.44	4.77	<0.001
GROUP B	15	3.13	0.53	2.60	78.72	1.12	0.29	8.49	<0.001

Effect on rukshata

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	11	2.27	0.81	1.46	61.77	1.80	0.47	3.00	<0.001
GROUP B	14	2.93	0.46	2.47	88.63	0.91	0.23	11.0	<0.001

Effect on daha

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	09	2.00	0.12	1.88	93.33	1.64	0.42	4.40	<0.001
GROUP B	14	2.93	0.40	2.53	86.36	0.91	0.23	10.71	<0.001

Effect on sraava

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	08	1.00	0.13	0.87	86.67	0.91	0.23	3.67	<0.001
GROUP B	11	2.40	0.53	1.87	75.75	1.23	0.31	5.22	<0.001

Effect on unnati

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	10	2.00	0.13	1.87	93.33	1.60	0.41	4.52	<0.001
GROUP B	14	2.93	0.73	2.20	75.00	0.94	0.24	9.05	<0.001

Effect of therapy on associated symptoms

Effect on joints pain

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	09	1.81	0.12	1.67	92.59	1.59	0.41	4.06	<0.001
GROUP B	12	2.33	0.33	2.00	85.71	1.19	0.30	6.48	<0.001

Effect on jwara

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	06	1.06	0.19	0.87	76.18	1.10	0.28	2.94	<0.001
GROUP B	09	2.07	0.02	1.86	90.32	1.68	0.43	4.29	<0.001

Effect on pitting oedema

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	14	2.60	0.57	2.03	76.93	1.55	0.40	4.98	<0.001
GROUP B	13	2.67	0.53	2.13	80.00	1.24	0.32	6.63	<0.001

Effect on sleep

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	10	2.60	0.57	2.03	76.93	1.55	0.40	4.98	<0.001
GROUP B	13	2.67	0.53	2.13	80.00	1.24	0.32	6.63	<0.001

Effect of therapy on sign

Effect on Candle grease sign

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	12	1.13	0.47	0.66	58.82	0.61	0.15	4.18	<0.001
GROUP B	15	1.40	0.33	1.07	76.19	0.25	0.06	16.0	<0.001

Effect on Auspitz sign

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	11	1.13	0.40	0.73	64.70	0.79	0.20	3.55	<0.001
GROUP B	12	1.33	0.40	0.93	70.00	0.70	0.18	5.13	<0.001

Effect on Koebner's phenomenon

Groups	N	Mean		X	% Relief	S.D	S.E.	t-value	p-value
		B.T.	A.T.						
GROUP A	05	0.53	0.33	0.20	37.50	0.56	0.14	1.38	>0.05
GROUP B	08	0.86	0.40	0.46	53.84	0.63	0.16	2.82	<0.01

Table 19: Overall effect of therapy

Result	Group A	%	Group B	%	Total no. of patients	Total %
Complete remission (100%)	0	0	0	0	0	0
Marked improvement (>76%)	6	40.0	10	66.66	16	53.34
Moderate improvement (51%-75%)	7	46.66	5	33.33	12	40.00
Mild Improvement (26%-50%)	2	13.33	0	0	2	6.66
Unchanged (<25%)	0	0	0	0	0	0
Total	15		15		30	

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