

A Comparative Clinical Study of the Effect of Maha Vajraka Ghritam as Nasya and Virecana in the Management of Kitibha Kuṣṭa W.S.R to Psoriasis Vulgaris

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Abstract

Psoriasis is a common, genetically determined, inflammatory skin disorder of unknown cause which in its most usual form is characterized by well demarcated raised red scaling patches that preferentially localize to the extensor surfaces. The typical lesion is distinctive. It has a very well demarcated margin and is raised above the skin surface (plaque). The cause of Psoriasis is unknown, one very obvious abnormality is the hyper plastic epidermis with increased mitotic activity. Psoriasis can be co-related with Kitibha kuṣṭa with many similarities in lakṣanās. Kitibha is having Śyāva, Kinakhara sparśa and Paruṣa lakṣanās.

The present clinical study is planned with Role of Virecana (therapeutic purgation) and Nasya (therapeutic errhine therapy) with Mahā vajraka ghṛta in Kitibha kuṣṭa. Vāghbaṭa mentioned kuṣṭa as an indication of Virecana karma (purgation therapy) (A.H.Su.18/10) (A.H.Ci.19/19-20), and indicated Maha vairaka ghṛtam for Virecana in kuṣṭa, the author has mentioned Kuṣṭa as an indication of Nasya (A.H.Su 20/2).

As Kuṣṭa is a Rakthapradoshaja vikāra, Raktha and Pitta have Āśrya Āśrayi bhāva sambhanda, Pitta dosha plays major role in manifestation of Kitibha. So, Virecana is selected as a therapy in present study. Nasya karma one of the therapeutic procedures of Pañcha karmā where in drug is administered through the nasal route. This is one of the Pañcha karmā procedures, which completely eradicates the vitiated Doshā's as well as the disease.

Present study was undertaken on 60 patients of Kitibha kuṣṭa. Patients were randomly selected from the OPD and IPD of S.V. Āyurvedic Hospital, T.T.D. Tirupati.

The results are subjected to ANOVA test for comparison of 60 patients in two groups. Significant improvement was found in both groups, more in Virecana with Go-ghrita snehapāna compare to Nasyam.

Keywords: Psoriasis; Kitibha Kuṣṭa; Virecana; Nasya; Mahā Vajraka Ghṛtam

Introduction

Incidence and prevalence of psoriasis

Psoriasis is a life-long disorder subject to unpredictable remissions and relapse. It has been found that certain leukocyte antigens (HLA) occurs more frequently in patients with Psoriasis. The HLA characteristics of an individual are carried on chromosome 6, are inherited in a regular Mendelian way and are of vital importance in the body's immune response

In modern medicine Psoriasis can be managed with mid-potency topical glucocorticoids, their long-term usage is accompanied by loss of effectiveness and atrophy of skin. U.V-B light narrow band UV-B and U.V.A spectrum with either oral or topical psoralens (PUVA) are also extremely effective, their long-term use may be associated with increased incidence of non-melanoma and melanoma skin cancer. The medicines like corticosteroids, methotrexate have toxic side effects like Teratogenicity. Hyperlipidaemic effect, Hepatotoxicity, Bone toxicity and PUVA treatment have side effects like skin cancer, cataract, xeroderma etc. So, there is a need of exploring a safe and effective medicine.

Psoriasis can be co-related with Kitibha kuṣṭha with many similarities in lakṣaṇās. Ayurveda classified all the skin diseases under a single heading called 'Kuṣṭha'.

The present study is planned with Virecana and Nasya with Maha vajraka ghrita. Vāghbhaṭa mentioned kuṣṭha as an indication of Virecana karma (purgation therapy) (A.H.Su.18/10) and indicated MAHA VAIRAKA GHRITAM for Virecana in kuṣṭha (A.H.Ci.19/19-20), the author has mentioned Kuṣṭha as an indication of Nasya (A.H.Su 20/2).

Virecana (therapeutic purgation) is useful in the disorders in which pitta is associated with Vāta or Kapha. Kitibha kushta the predominant doshas are Vāta and kapha, Pitta dosha plays major role in manifestation of Kitibha. So, Virecana is selected as a therapy in present study.

Nasya karma (therapeutic errhine therapy) one of the therapeutic procedures of Panchā karma where in drug is administered through the nasal route. Ācharya Vagbhaṭa has stated - "Nāsa hi Śīrasodwāram" i.e. nose is the gateway to head for the easiest and better conveying of the potency of medicine into the cranial cavity.

Thus, in the present study Virecana karma and Nasya karma with Mahā vajraka ghritam are advised to the patients of Kitibha Kuṣṭha, comprising of two different groups. Each group has 30 randomly selected patients. In group A Virecana is advised with Mahā vajraka ghritam followed by snehapāna with the Go-ghrita whereas in group B Nasya with Mahā vajraka ghritam is advised for 14 days.

Drug review

Selection of Drug in present study

Ācharya Vāghbhaṭa indicated Mahā vajraka ghritam for virecana in Kuṣṭha cikitsa

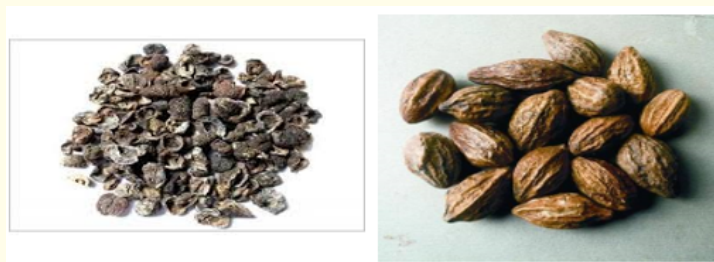
त्रफिलात्रकिटुदवकिण्टाकारीकटुकानकिुम्भराजवुरुकषैः

सवचातविषिग्नकैः सपाटैः पचिभागैरनवज्वरदुग्धमुष्ट्या

पषिटैःसदिधम् सर्पषिः प्रसथमेभिः कुरुरे कोषटे स्नेहनम् च

कृष्टसि्वित्तिरप्लीहवधरमाशमगुल्मान् हन्यात्कुरुच्छामस्तन्महावज्काख्यम्!! (A.Hr.19/19-20).

The composition of Mahā vajraka ghrita. The properties of the individual ingredients used in the preparation of the ghrita are also given here.



Figure

Materials and Methods

Materials: Go-ghritam for sneha pānam.

Mahā vajraka ghritam for virecana and nasya.

All the ingredients easily available and cost effective. the mahā vajraka ghritam used for study is prepared in the rasa sāshtra department of s.v. ayurvedic college.

Method

Source of data: The patients who have attended the OPD and IPD of the Panchakarma department of S. V. Ayurvedic Hospital, Tirupati between 18 to 60 years of age having the complaints of classical kitibha lakshanās i.e. syāva, khiṇa, khara sparsha kandūmat, asitam, are screened. Out of the 64 screened patients, excluding the 4 drop outs in the study (due to reason of personal family problems, professional problem) total 30 patients are randomly allocated into two groups, Group- A and another Group-B. Patients coming with the selected disorder are registered alternately into the two groups. Among them 30 patients in group-A and 30 patients in group-B. Patients in each group fulfilling the inclusion and exclusion criteria are taken.

Inclusion criteria

1. Age between 18 to 60 yrs.
2. Patients with signs and symptoms of Psoriasis.
3. Patients fit for Nasya.
4. Patients fit for virecana.
5. Signs and symptoms of kitibha kuṣṭha as per ayurvedic texts- Rūksha, Khiṇa, KharaSparsha, Kandūmat, Parusha, Asitam.

Exclusion criteria

- Age below 18 and above 60 yrs.
- Nasya contraindicated persons.
- Virecana contraindicated persons.
- Pregnant women, weak and emaciated.
- Patients with serious systemic diseases in which patient is unable to withdraw Modern drugs.
- Other types of kuṣṭha.
- Patients with long standing diabetes mellitus associated with non-healing ulcers and other complications of diabetes mellitus.

Investigations

Patients were assessed according to clinical parameters at

- Before the initiation of treatment - 0th day.
- On 15th day immediately after treatment.
- On 45th day - follow up - 30 days after treatment.

Laboratorial evaluation:

- Blood: Hemoglobin, TLC, DLC, ESR, BT, Sugar- Fasting and Post meal.
- Bio-chemistry: Total lipid, Cholesterol, Triglycerides.
- Urine: Routine and Microscopic.
- Stool: Ova/Cyst.
- X-ray of the affected joints.

Intervention

Patient in group A were treated with Virecana karma with Mahā vajraka ghritam in initial dose of 15 ml along with Go-ghritam snehapāna in ascending doses till samyak snigdha lakshanās are attained.

Patient in group B were treated with Nasya karma with Mahā vajraka ghritam in dose of Marsha Nasya (1 bindu) for 14 days.

Virechana

- A purgation therapy is helpful in expulsion of toxins stuck in the liver and gallbladder and aids complete cleansing of gastrointestinal tract.
- Virechana is recommended primarily for pitta-dominated conditions such as herpes zoster, jaundice, colitis, coeliac disease etc.

Nasya

- Can be defined as a process where the medicated oil is administered through the nose to remove Kapha toxins from the head and neck region
- This brings about the cleaning of the entire head region and relieves various types of headache, migraine, hair problems, sleep disorders, neurological disorders, sinusitis, chronic rhinitis and respiratory diseases

Observation methods

Methods for clinical evaluation

- Śyāva (blakish brown colour of skin)
- Khiṇa Khara sparśa (affected skin will be rough to touch like scar tissue)
- Paruṣa (hard to touch)
- Kaṇḍū (itching)
- Utsannat (eruptions)
- Dāha (burning sensation)
- Pitting of Nails
- Auspitz sign
- Koebner’s Phenomenon
- Candle grease sign
- PASI Score
- DLQI

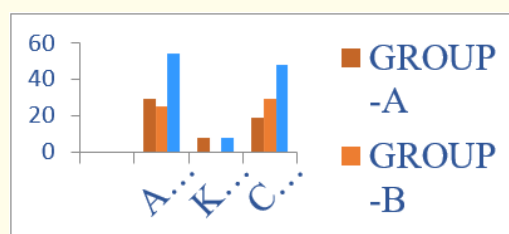
Results and Discussion

The results are subjected to ANOVA test for comparison of 60 patients in two groups. Significant improvement was found in both groups, more in Virecana with Go-ghrita snehapāna compare to Nasyam.

Signs of psoriasis: Distribution of patients according to signs of psoriasis

S.no.	Sign’s	Group-A	Group-B	No. of patients	%
1	Auspitz	29	25	54	90
2	Koebner’s	08	00	08	13.33
3	Candle grease	19	29	48	80

Table 1



Effect of Virecana karma and Nasya Karma on Śyāva (blakish brown colour of skin)

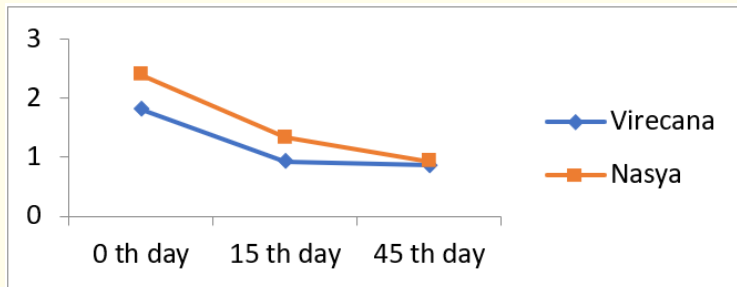


Figure 1

The relief of Śyāva after completion of Virecana on the 15th as well as on 45th day is extremely significant. On the 15th day Śyāva is relieved by 48% and on 45th day by 52%.

After 14 days of Nasya Karma on the 15th day Śyāva is significantly reduced by 44% and on 45th day by 61%, as compared to 0th day, and is statistically extremely significant

Effect of Virecana Karma and Nasya Karma on Kiṇa Khara Sparśa (affected skin will be rough to touch like scar tissue)

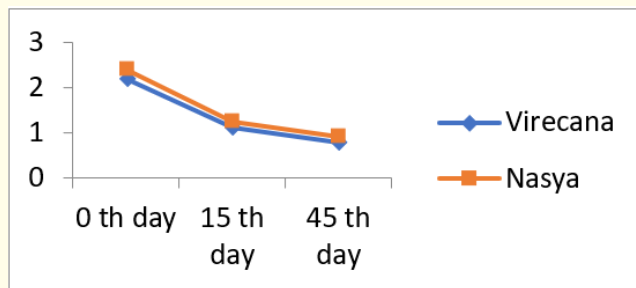


Figure 2

The relief of Kiṇa Khara Sparśa after completion of Virecana on the 15th day as well as on the 45th day is extremely significant. On 15th day Kiṇa Khara Sparśa is improved by 49% and on 45th day by 64%, in comparison to 0th day.

After 14 days of Nasya on the 15th day as well as on the 45th day, relief of Kiṇa Khara Sparśa is extremely significant in comparison with 0-day. On 15th day Kiṇa Khara Sparśa is improved by 47% and on 45th day by 61%, in comparison to 0th day.

Effect of Virecana Karma and Nasya Karma on Paruṣam (hard to touch)

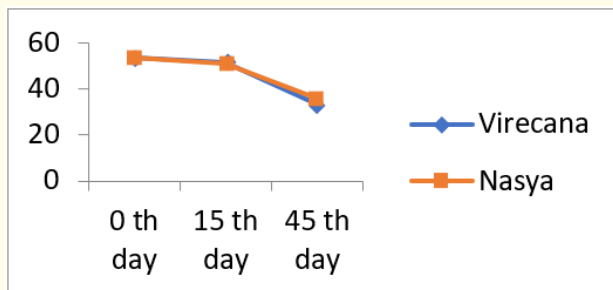


Figure 3

The relief of Paruṣam after completion of Virecana on the 15th day as well as on the 45th day is extremely significant. On 15th day Paruṣam is improved by 55% and on 45th day by 62% in comparison to 0th day.

After 14 days of Nasya on the 15th day as well as on the 45th day, relief of Paruṣam is extremely significant in comparison with 0-day. On 15th day Paruṣam is improved by 43% and on 45th day by 51% in comparison to 0th day.

Effect of Virecana Karma and Nasya Karma on Kandū (itching)

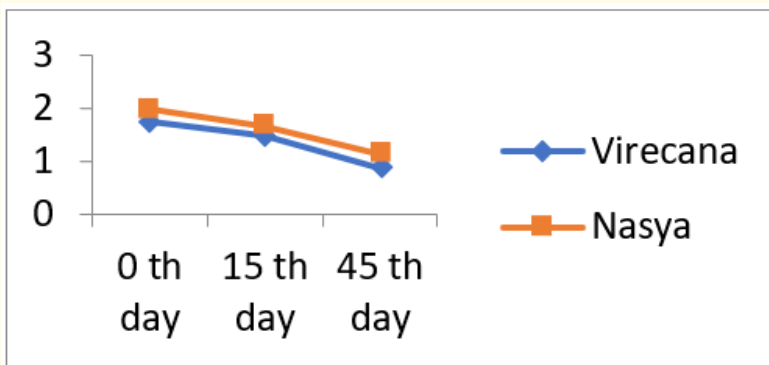


Figure 4

The relief of Kandū after completion of Virecana on the 15th day as well as on the 45th day is extremely significant. On 15th day Kandū is improved by 67% and on 45th day by 98%, in comparison to 0th day.

After 14 days of Nasya on the 15th day as well as on the 45th day, relief of Kandū is extremely significant in comparison with 0-day. On 15th day Kandū is improved by 47% and on 45th day by 76% in comparison to 0th day.

Effect of Virecana Karma and Nasya Karma on Utsannata (eruptions)

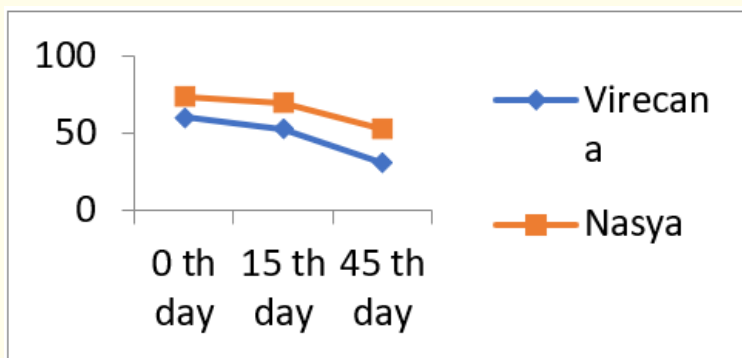


Figure 5

The relief of Utsannata after completion of Virecana on the 15th day as well as on the 45th day is extremely significant. On 15th day Utsannata is improved by 75% and on 45th day by 95% in comparison to 0th day.

After 14 days of Nasya on the 15th day as well as on the 45th day, relief of Utsannata is extremely significant in comparison with 0-day. On 15th day Utsannata is improved by 33% and on 45th day by 40% in comparison to 0th day.

Effect of Virecana Karma and Nasya Karma on pitting of nails

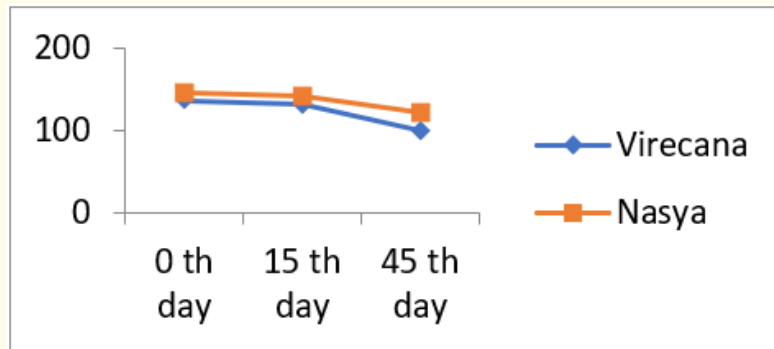


Figure 6

The relief of Pitting of Nails after completion of Virecana on the 15th day as well as on the 45th day Pitting of Nails is extremely significant. On 15th day is improved by 31% and on 45th day by 37% in comparison to 0th day.

After 14 days of Nasya on the 15th day as well as on the 45th day, relief of Pitting of Nails is extremely significant in comparison with 0-day. On 15th day Pitting of Nails is improved by 15% and on 45th day by 19% in comparison to 0th day.

Effect of Virecana Karma and Nasya Karma on Auspitz Sign

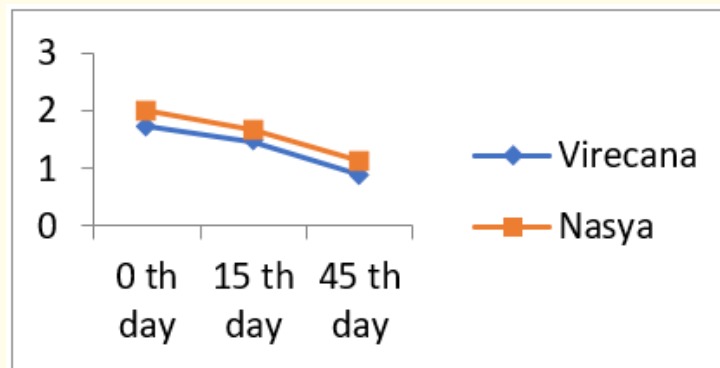


Figure 7

After Virecana karma the Auspitz sign is improved by 67% and on 45th day improved by 98% in comparison to 0th day, which is extremely significant.

After 14 days of Nasya karma the Auspitz sign improved by 47% and on 45th day improved by 76% in comparison to 0th day, which is also extremely significant.

Effect of Virecana Karma and Nasya Karma on Candle Grease Sign

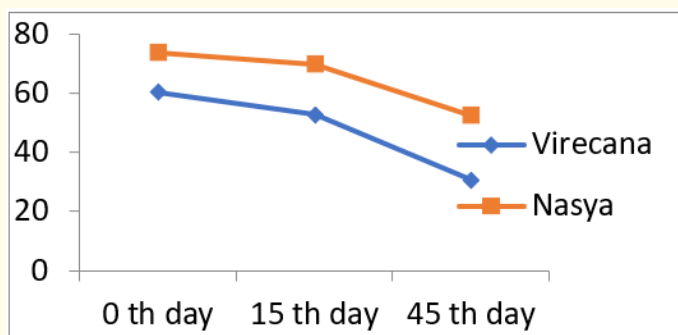


Figure 8

After Virecana karma Candle Grease Sign the is improved by 75% and on 45th day improved by 95% in comparison to 0th day, which is extremely significant.

After 14 days of Nasya karma Candle Grease Sign the improved by 33% and on 45th day improved by 40% in comparison to 0th day, which is also extremely significant.

Effect of Virecana Karma and Nasya Karma on Pasi Score

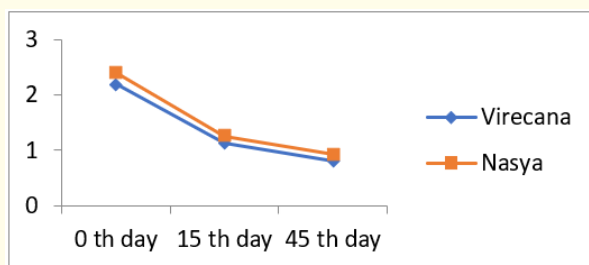


Figure 9

After Virecana karma Pasi Score the is improved by 48% and on 45th day improved by 64% in comparison to 0th day, which is extremely significant.

After 14 days of Nasya karma Pasi Score the improved by 47% and on 45th day improved by 61% in comparison to 0th day, which is also extremely significant.

Effect of Virecana Karma and Nasya Karma on DLQI

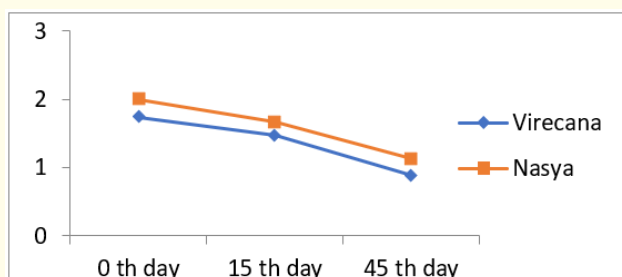


Figure 10

After Virecana karma the DLQI is improved by 67% and on 45th day improved by 98% in comparison to 0th day, which is extremely significant.

After 14 days of Nasya karma the DLQI improved by 47% and on 45th day improved by 76% in comparison to 0th day, which is also extremely significant.

Discussion on demographic data and etiopathology

- **Age:** Patients of age ranging from 46-55 years were affected more in number followed by age of 36 - 45 years and then young adult age, it can be said that the onset of disease takes place at the young adult age due to stressful lifestyle, irregular dietary habits.
- **Sex:** Male patients were recorded more in number (47) as compared to females (13). As the sample size was too small to draw any concrete conclusion one cannot say that the disease is more prevalent in males.
- **Marital Status:** Married patients were more in number (56) than unmarried (4). As per the inclusion criteria for age is between 18 - 60 years more number of patients registered were married. There may be a chance of stressful family life, financial issues, disputes with the opposite partner or family member which are risk factors for Psoriasis.
- **Āhāraja Nidāna:** Among all the patients 47 persons found to be having history of Nava anna dadhi matsya, ati lavana, ati amla, 28 patients found to be having habit of Ajeerna, whereas 22 of Drava, Snigdha, Guru Virudha Āhāra and Seetoṣṇa langhana āhara in krama, adhyaśana of 16 respectively. From above data we can conclude that Āhāraja Nidāna play very important role in Samprāpti (pathophysiology) of Kitibha Kuṣṭha as quoted by all texts. Next to it Viruddhāśana and adhyaśana are observed as important factors.
- **Vihāraja Nidāna:** Divāswapna (day sleep) was the predominant factor found in 43 among 60, Vyāyama and ati santāpa after bhukthopasevana found in 27, Vega avarodha of adhāraniya vegas 22 and Seetāmbu sevana immediately after exposure to gharma, śrama, bhaya found in 13 found as Vihāraja Nidāna. Divā swapna aggravates Kapha Dōṣa which may results in Srotō sanga. Vega Dhārana and Ati śrama aggravates Vāta dōṣā. Śitōṣṇa vyatyāsa sēvana causes Svēdavaha srotō duṣṭi. All factors collectively cause (Kitibha) Kuṣṭha.
- **Mānasika Nidāna:** Cintā (strainfull mind/stress) has been found as an Mānasika Nidāna predominantly in 32 patients when compared to Krōdha 24, Śōka 13 and Bhaya 6. While describing Rasavaha srotō duṣṭi kāraṇa "Cintyānām ca aticintanāt" is the important factor told by Ācārya Caraka. Moreover, according to modern studies also, stress is the main triggering factor for Psoriasis.
- **Aggravating Factors:** Winter 48 has been found as the most aggravating factor followed by Stress 32. study published in the journal Archives of Dermatology found that those living with psoriasis have a 39 percent increased risk of being diagnosed with depression than those without the disease, while the risk of an anxiety diagnosis is 31 percent higher.

Discussion on disease aspect

The role of hormones in psoriasis: The hormones also have an important influence on the severity of psoriasis clinical manifestations.

1. Sex hormones and psoriasis

Psoriasis is a chronic inflammatory disease, characterized mainly by the involvement of T lymphocytes, and also by neutrophils, dendrites cells, and mast cells, all major inflammatory cytokines producers: interferon gamma (IFN- γ), tumor necrosis factor alpha (TNF- α), and interleukins (IL-2, IL-12, IL-17 and IL-23).

Estrogens influence the immune responses, modulating the development and activation of immune cells, through the influence and control exerted upon the expression of different cytokines. Other effect of estrogens is the decreasing of matrix metalloproteinase activity in fibroblasts, which lowers the destruction of extracellular matrix and the release of growth factors, another pathogenic psoriatic link.

2. **Androgens:** Androgen hormones influence the homeostasis of the epidermal barrier, the growth and differentiation of the hair and the sebaceous gland. The adrenal androgens decrease in chronic inflammatory diseases and the therapies based on androgen can aggravate psoriasis.

- 3. Stress hormones and exercise:** The psoriatic patients present higher levels of epinephrine and adrenocorticotrophic hormone and lower levels of cortisol and corticotrophin releasing factor. Epinephrine can modulate the remission phase and cortisol the eruption phase.

Through metabolic and psycho-neuro-immune effects, a regular exercise influences positively the metabolic co-morbidities, lowers the risk and the onset of psoriasis.

- 4. Thyroid hormones:** Psoriasis can be intensified by an excessive production of thyroid hormones, the free thyroxine is increased significantly in the psoriatic patients, in severe psoriasis, there are increased levels of thyroid-stimulating hormone.

Discussion on therapy aspect

- Deepana -Pāchana dravyas enhances the digestive capacity which facilitates the easy digestion of Sneha(ghee). Sneha is important for loosening the bond between Dosha and Dūshya, thereby helping in breaking the pathogenesis of Psoriasis. Vāta śamaka, Dāha śamaka property of ghrita decreases scaling and dryness. External Snehana softens morbid doshas and localize them, decreases dryness and scaling, gradual increase of dose of sneha is important for loosening the bond between Dosha and Dushya, thereby helping in breaking the pathogenesis of Psoriasis.
- In Kuṣṭha the Raktha dhatu is involved, Pitta and Raktha are having Aśraya-Aśrayi bhava sambhanda, treatment of pitta dosha and raktha dhatu complimenting each other. Mild irritation to the stomach and intestinal mucosa to cause inflammation, due to this the permeability of the membrane changes and those substances come out due to the changed permeability which cannot come in normal condition. Nutritive and easily assumable preparations such as Peya, Vilepi, Akṛta yūsha, Kṛita yūsha is crucial for better bioavailability and up liftment of the biological system after Virecana. The skin is a neuroendocrine organ, capable of hormone synthesis and release corticosteroids and sex hormones are synthesized and transformed.
- Nasal mucosa is the only location in the body that provides a direct connection between central nervous system (CNS) and the atmosphere. To achieve rapid diffusion through nasal mucosa the lipid soluble drugs are preferred where the mucosal cilia are lipophilic in action. The drugs administered through nose stimulate the higher centers of brain which shows action on regulation of endocrine and nervous system functions. So, Nasya karma is used both to manage the Sthānika (local) and Sarvadaihika (general) anomalies.

Probable mode of action of Mahā Vajraka Ghritam as Virecana dravya and Nasya dravya

In the present study, the compound drug Maha vajraka ghrita which was used for VIRECANA and NASYA contains ingredients which are mainly having Kapha-Vātahara properties.

- **Triphala:** Psoriasis is often linked to a compromised gut health and an overload of acidic body toxins. Immune system considers these toxins as a threat and triggers to an auto immune reaction to cause inflammation and un usual growth of skin cells to develop psoriatic patches on various parts of the body. Triphala relieves constipation, improves circulation and aids in digestion supports smooth elimination of body toxins without irritating digestive tract.
- **Trikatu:** Vrana ropana and vrana shodhaka action of drug may promote the healing of lesions and aid in the treatment of psoriasis.
- **Kantakāri:** The anti-psoriatic activity may be attributed to inhibition in the expression of cytokinins such as TNF - alpha, IL-1beta, IL-6, IL-17, anti- oxidant, anti-microbial and cellular proliferative activities may act as a contributing factor in treatment of psoriasis.
- **Katuki:** Picrorhiza possesses significant antioxidant activity, by reducing lipid peroxidation and free radical damage. Picrorhiza also offers anti-inflammatory effects, inhibiting the infiltration of pro inflammatory cells.
- **Jayapāla:** Seeds of Jayapala have Kapha-Vāta hara, Recana, Vishaghna properties.
- **Danti:** The roots of *B. montanum* considered as a good remedy for skin disorders.

- **Āragvadha:** Cassia fistula fruit pulp extract showed good activity in the psoriasis like anti-proliferant activity, reducing relative epidermal thickness.
- **Vachā:** Acorus calamus inhibits the production of Pro-inflammatory cytokines through multiple mechanisms and may be an effective anti-inflammatory agent for the management of skin diseases.
- **Ativisha:** Tubers of Aconitum heterophyllum enhance phagocytic function and inhibit humoral component of immune system thus it has immunomodulatory activity.
- **Citraka:** It is used in the form of local applications for leucoderma, scabies, psoriasis, symptoms of leprosy and allied skin diseases.
- **Pātha:** Hydroalcoholic extract of *Cissampelos* showed an immune modulatory effect on B -lymphocyte function.
- **Snūhi Ksheera:** *Euphorbia neriifolia* has significant anti-inflammatory activity [1-10].

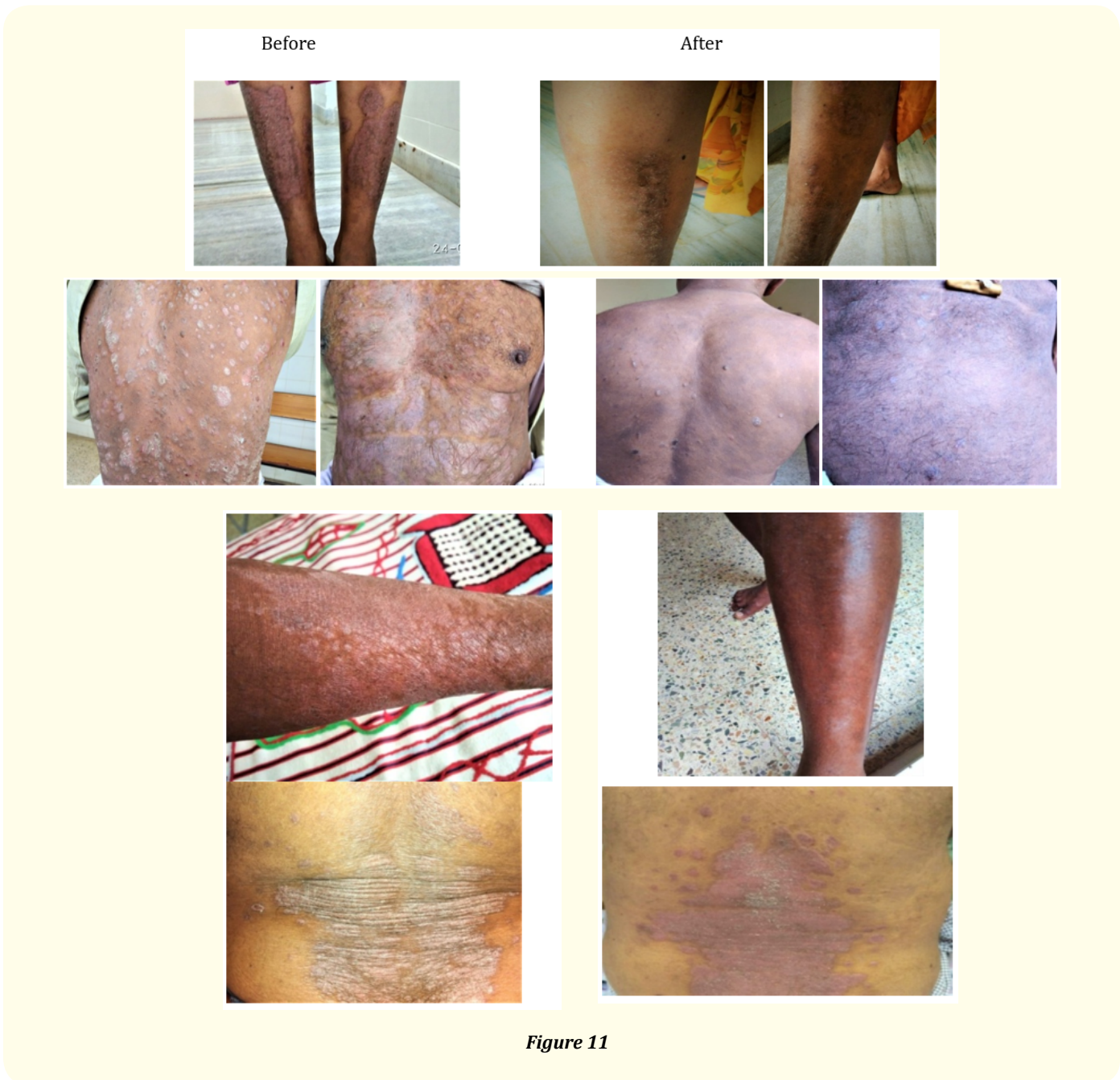


Figure 11

Conclusion

In the present study Nasya and Virecana with Mahā vajraka ghritam are advised to the patients of kitibha kushta, each group has 30 randomly selected patients.

In group-A Virecana is advised with Mahā vajraka ghritam proceeded by snehapāna with Go-ghrita; whereas in group B Nasya with Mahā vajraka ghritam is advised for 14 days.

Significant improvement was found in both A and B groups, more in Virecana with Go-ghrita snehapana compare to Nasyam.

No notable adverse or side effects were encountered during this treatment period.

With Virecana and Nasya the results are quite encouraging. As the study sample is very small it may be replicated in larger samples in further studies which are expected to yield better results.

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