World Journal of Pharmaceutical and Life Sciences
WJPLS

ROLE OF NIMBADI CHURNA IN THE MANAGEMENT OF EKA KUSHTA W.S.R. PLAQUE PSORIASIS

[1]Dr. Monika Gupta* and [2]Dr. Aman Gupta

[1]Associate Professor, Deptt. of Kayachikitsa, JIAR, Jammu, India.
[2]Consultant, Deptt.of Shalya Tantra, GAMC, Jammu, India.

Corresponding Author: Monika Gupta

Associate Professor, Deptt. of Kayachikitsa, JIAR, Jammu, India.

ABSTRACT

In today's world everyone sees what you appear to be. Appearance is nothing but the skin. Skin diseases are affecting the mankind since time immortal. Skin is a mirror that reflects external and internal pathology, and is also the seat of complexion, which maintains beauty and personality. It provides individual identity in the society. In *Ayurveda*, almost all the skin disease are explained under *Kushta-Rogadhikara* and classified as 7 *Maha Kushta* and 11 *Kshudra Kushta*. The signs and symptoms of *Eka-Kushta* in *Ayurveda* are similar to that of Plaque-psoriasis explained in modern medicines. *Eka Kushta* is a *Kapha Vataja Pradhan Tridoshaja Vyadhi* and the *Bhrajaka Pitta* is responsible for the normal texture of the skin, so the drugs that are capable of maintaining normalcy of *Bhrajaka Pitta* with properties such as *Dipana, Pachana, Raktashodhana, Krimighna* etc should be used for this purpose. For the above reasons, *Nimbadi Churna* can be taken as an effective remedy of *Eka Kushta*.

KEYWORDS: *Eka-Kushta*, Plaque- Psoriasis, *Nimbadi churna*, Skin.

INTRODUCTION

Skin is the largest organ in the human body. In a normal adult it weighs 4kgs and covers 2m square area.[1] Patients of skin disease always experience physical, emotional and socio-economic embarrassment in the society.[2,3]

In *Ayurveda*, almost all the skin disease are explained under *Kushta-Rogadhikara* and classified as 7 *MahaKushta* and 11 *Kshudra Kushta*.[4,5] *Kushta* is considered to be under *Ashtamahagad Rogas* and *Aupsargika Rogas*.[6] *Eka Kushta* is one among 11 varieties of *Kshudra Kushta* described in *Ayurvedic* classics characterised by *Aswedana, Mahavastu, Matsyashakalvat tvacha'* by *Acharaya Charaka*[4] and *Abhraka Patrasama* by *Acharaya Bhavprakasha*.[7] These *Lakshanas* seem to be more nearer to Plaque Psoriasis.

Psoriasis affects about 2 to 3% of the population.[3] The world wide prevalence of Psoriasis is around 1.5% but studies have reported higher prevalence rates on an average about 5%. The prevalence of psoriasis in J&K is 3.4%. It is equally common in both men and women and can start at any age. Plaque Psoriasis is one among the most common disorders encountered in clinical practice characterised by erythematous, circumscribed, white silvery skin lesion.[8,9]

AIM AND OBJECTIVES OF THE STUDY

- To evaluate the efficacy of *Nimbadi Churna* in the management of *Eka Kushta.*
- To review conceptual study *of Eka Kushta* vis-a-vis Plaque Psoriasis.
- To review aetiopathogenesis of Plaque Psoriais as per modern literature.
- To provide better life to the patient of *Eka Kushta.*
- To provide cheap and safe treatment without side effects and in the management of *Eka Kushta.*

MATERIALS AND METHOD
Source of data
Patients attending O.P.D & I.P.D of Jammu Institute of Ayurveda and Research Hospital. Also special camps were conducted for the study.

Study was carried out on the patients fulfilling the criteria of *Eka Kushta*. Patients were randomly selected irrespectively of their socio-economic, educational and religious status.

Inclusion Criteria
- Patients presenting with classical features of *Eka Kushta*.
- Patients aged between 18 – 60 years, irrespective of gender.

- Patients with history of *Eka Kushta* less than 2 years.

Exclusion Criteria
- Age below 18 years and above 60 years.
- Skin disorders other than *Eka Kushta* were excluded.
- Patients with systemic disorders like Cardiac illness, Bronchial Asthma, Endocrine disorder.
- Pregnancy.
- Chronicity of more than 2 years.
- Patients not willing for trials.

Diagnostic Criteria
Detailed case history of patients were recorded to understand aetiopathogensis. Patients with following *Lakshanas* of *Eka Kushta* were selected for study:
- *Aswedana*
- *Kandu*
- *Rukshatva*
- *Matsyashakalopama*
- *Mahavastu*
- Signs and symptoms of Plaque Psoriasis:
- Itching
- Anhydrous
- Dryness
- Silvery scaly skin
- Epidermal thickness
- Auspitz's sign
- Candle Grease sign

OBSERVATION AND RESULTS

General observation as per trials of 30 patients of *Eka-Kushta* are completed and comprehended as under.

Table No 1: Age wise distribution of patients acc. to age.

Age Group (in years)	Total	Percentage (%)
20 – 30	03	10.00
31 - 40	08	26.66
41 – 50	12	40 .00
51 -60	07	23.33

Age: In present study, 40.00% of patients were in age group of 41-50 years followed by 27.00% patients in 31-40 years age group. In 51-60 years age group, there were 23.00% and 10.00% of patients in 20-30 years age group.

Table No. 2: Distribution of patients acc. to their religion.

Religion	No. of Patients	Percentage(%)
Hindu	27	90.00
Muslim	03	10.00
Total	30	

Religion: As per this table shows maximum no. Of patients i.e. 90.00% were from Hindu Community where as 10.00% were from Muslim Community.

Table No. 3: Distribution of patients acc. to their sex.

Sex	No. of Patients	Percentage (%)
Male	21	70.00
Female	09	30.00
Total	30	

Sex: In the present study, majority of patients i.e. 70.00% were males where as 30.00% of patients were females.

Table No. 4: Distribution of patients acc. to their marital status.

Marital Status	No. of Patients	Percentage (%)
Married	27	90.00
Un- married	03	10.00
Total	30	

Marital Status: In this study, maximum no. of patients i.e. 90.00% were married while 10.00% patients were unmarried.

Table No. 5: Distribution of patients acc. to their socio-economic status.

Socio-Economic Status	No. of Patients	Percentage (%)
Poor	07	23.33
Middle	21	70.00
Rich	02	06.66
Total	30	

Socio Economic Status: The above table shows that maximum no. of patients i.e. 70.00% were belonging to middle class followed by patients of poor class 23.00%. 07.00% of patients were belonging to rich class.

Table No. 6: Distribution of patients acc. to their habitat.

Habitat	No. of Patient	Percentage(%)
Urban	05	16.66
Rural	25	83.33
Total	30	

Habitat: The above table reveals that 83.33% patients were rural in habitants where as 16.66% patients were belonging to urban area.

Table No. 7: Distribution of patients acc. to their dietary habits.

Dietary Habits	No. of Patients	Percentage(%)
Veg	09	30
Mixed	21	70
Total	30	

Dietary Habits: In this study, 70% of patients were having mixed diet and 30.00% of patients were vegetarians.

Table No. 8: Distribution of patients acc. to their addiction.

Addiction	No. of patients	Percentage(%)
Tea/Coffee	10	33.33
Alcohol/Tobacco	05	16.66
Smoking	07	23.33
No addiction	08	26.66
Total	30	

Addiction: Various modalities of addiction encountered in the groups have been analysed in above table. In this study, 33.33% patients were addicted to tea/coffee while 23.33% patients were having smoking habit followed by 16.66% patients which were addicted of alcohol/tobacco. Rest of patients i.e 26.66% had no addiction.

Table No. 9: Distribution of patients acc. to their sleeping pattern.

Sleeping pattern	No. of patients	Percentage(%)
Regular/Sound	13	43.33
Irregular/Disturbed	17	56.66
Total	30	

Sleep Pattern: In present study, 56.66% of patients complained disturbed sleep and rest of patients i.e. 43.33% were having sound sleep.

Table No. 10: Distribution of patients acc. to their bowel habits.

Bowel habits	No. of patients	Percentage(%)
Regular	15	50
Irregular	03	10
Constipated	12	40
Total	30	

Bowel Habit: In this study, 50.00% of patients were having Regular bowel habit, 40.00% of patients were Constipated while 10.00% of patients were having irregular bowel habit.

Table No. 11: Distribution of patients acc. to their *agni*.

Agni	No. of patients	Percentage(%)
Vishama	10	33.33
Manda	08	26.66
Sama	10	33.33
Total	02	06.66

Agni: In present study, maximum no. of patients i.e. 33.33% were of *Mandaagni* and *Vishamaagni* where as patients of *Samaagni* and *Tikshanaagni* were of 6.66% and 26.66% respectively.

Table No. 12: Distribution of patients acc. to their *koshtha*.

Koshtha	No. of patients	Percentage(%)
Krura	12	40.00
Madhyma	15	50.00
Mridu	03	10.00
Total	30	

Kostha: In this study, 50.00% of patients were having *Madhyama Kostha*.40.00% of patients were having *Krura kostha* followed by 10.00% of patients of *Mridu kostha*.

Table No. 13: Distribution of patients acc. to their *deha prakriti*.

Deha-prakriti	No.of patients	Percentage(%)
Vata-Pitta	03	10.00
Vata-Kapha	19	61.33
Pitta-kapha	08	26.66
Total	30	

Deha-Prakriti: In this study, 63.33% of patients were of *Vata-Kapha prakriti*, followed by 27.00% of *Pitta-Kapha Prakriti* and remaining were *Vata- Pitta prakriti*.

Table No. 14: Distribution of patients acc. to signs and symptoms.

Signs and symptoms	No. of patients	Percentage(%)
Aswedana	28	93.33
Mahavastu	30	100.00
Matsya shakalopam	30	100.00
Kandu	26	86.66
Rukshata	28	93.33
Auspitz's sign or candle grease sign	09	30.00

Signs and Symptoms: In this study, 100.00% of patients reported Mahavastu and Matsya shakalopam. Aswedana and Rukshata was found in 93.33% and 86.66% of patients were reported with Kandu. Auspitz's sign and Candle grease sign was observed in 30.00% of patients.

Table No. 15: Distribution of patients acc. to their family history.

Family history	No. of patients	Percentage (%)
Present	13	43.33
Absent	17	56.66
Total	30	

Family History: In this study, maximum no. of patients i.e 56.66% were having family history of Atopy while 43.33% of patients reported no family history.

Table No. 16: Distribution of patients acc. to their *nidana sevana*.

Nidana sevana	No. of patients	Percentage (%)
Dugdha+Amla rasa	03	10.00
Dugdha+Lavana rasa	04	13.33
Mamsa+Dadhi	06	20.00
Ati Lavana	02	06.66
Adhyashan	03	10.00
Diwa- Swapa	06	20.00
Vega-Vidharana	05	16.66
Aatapadi- sevana,sheeta jala sevana	04	13.33
Panchakarma apchara	11	36.66

Nidana sevana: Among 30 patients, maximum no. of patients i.e. 36.66% were habitual of taking *Atapadi sevana Sheeta jala sevana*, 20.00% were habitual of taking *Mamsa+ Dadhi* and *Adhyashan*, 16.66% of patients were taking *Diwa Swap*. 13.33%of patients showed the habit of taking Dugdha+Lavana Rasa and Vega vidharana, while in 10.00% patients Dugdha+Amla rasa and Ati Lavana etiological factors were seen followed by 6.66% Ati Lavana sevana.

Effect of Therapies
Effect of therapy on *Aswedana*: There was improvement in *Aswedana* which was reported to be 46.15%. the relief is statistically highly significant.(P< 0.001).

Eka-Kushta is said to be *Vata-Kapha Pradhana Vyadhi*. *Katu Rasa Pradhana* drugs present in *Nimbadi Churna* helps to combat with both *Vata* and *Kapha* (100.00% drugs are *Kaphaghna*).

Effect of therapy on *Maha-vastu*: There was improvement in *Maha-vastu* which was reported to be 40.46%. the relief is statistically highly significant (P< 0.001).

Mahavastu is the term used in *Eka-Kushta* to describe the spread of the disease in extended form. As both *Kapha- Pitta* are unable to circulate in the body on their own. This is functioned by *Vayu*.

Tvaka-Dhatvagni-Mandhya causes *Kha-Vaigunya*. When already *Dushit Vayu* circulate in the body morbid *Dosha* are lodged in such places. In *Eka-Kushta*, maximum part of the skin is irritated, it causes *Mahavastu*. Drugs present in the trial formulations helps to fasten the procedure.

Effect of therapy on *Matsya-shakalopam*: There was 48.68% improvement on average which is statistically significant (P<0.01).

Matsya-shakalopam means fish like scales which is the characteristic feature of *Eka-Kushta*. It occurs due to vitiated *Vata* which causes *Rukshata* or *Kharata*. The pharmacodynamic action of *Nimbadi Churna* which mainly has *Kapha-Vatashamaka* property. They mainly contains *Kushtaghna* and *Rasayana* drugs like *Triphala*, *Gavakshi*, etc. Which may act at the cellular level and prevent their over production.

Effect of therapy on *Kandu* (Itching): It is relieved by 69.83%, which is statistically highly significant with (P<0.001).

Kandu is a symptom mainly cause by vitiated *Kapha Dosha* ("**Kandu naste vina Kaphat**") The *Kushtaghna*, *Kandughna* and *Vata-Kapha Shamaka* properties of *Nimbadi Churna* may be probably be responsible for relief in *Kandu*.

Effect of therapy on *Rukshata* (Dryness): There was 50.40% improvement on average which is statistically significant (P<0.01) due to *Vata-Kapha Shamaka* property of the trial drug.

Effect on Auspitz's sign and Candle- grease sign: There was 54.54% relief in these signs, which is statistically significant (P<0.05).

Auspitz's sign is nothing but 'minute –tiny bleeding after removal of the scale.' It is due to dilation of the capillaries. The phenomena is due to *Vata-pitta Dushti* and *Rakta-Vikriti*.

As 'constriction-dilation' are the functions of *Vayu*, where as velocity of any substance is associated with both *Vayu* and *Pitta* (*Tikshana*). *Pitta* is always associated with *Rakhta*. In candle-grease sign, *Vata-Kapha Dushti* causes scaling through normal skin present beside psoriatic leisons. The trial drug have *Vata-Kaphaghna* property which helps in improving these signs.

Criteria for effect of overall treatment

Overall Improvement	No. of Patient	%age
Complete Remission	00	0%
Marked Improvement	14	46.66%
Moderate Improvement	15	50.00%
Mild Improvement	01	3.33%
Unchanged	00	0%

CONCLUSION

'Conclusion is the determination established by investigation in various ways and deducting by means of various reasons.'

So, based on the study sample, after completion of the study, following conclusions can be drawn:
- *Eka Kushta* being a *Kshudra Kushta* has *Vata-Kapha* dominance & even involvement of *Tridosha*.
- *Eka Kushta* in modern parlance has similarity with Psoriasis.

- Negligence in early stage and re-occurrence of Psoriasis is a common phenomenon.
- Maximum patients had the history of *Virudhaahara* and *Mandagni* which clearly shows the role of *ama* formation in pathogenesis of *Kushta.*
- *Chinta* is *Mansika nidana* which lead to *vataprokapa* which was observed in maximum number of patients. Also maximum patients were found tensive and depressed. This observation clearly shows the psychosomatic nature of the disease.
- Excessive intake of *Amla, Lavana* and *Katu Rasa* are common causative factors for *Eka-Kushta*.
- Family history was supporting in many patients which suggests that the disease is hereditary.
- Plaque variety of Psoriasis is very common
- *Rasa, Rakta, Mamsa* and *Swedavaha Srotodusti* were found chiefly and *Kapha* and *Vata* were main.
- It is said to *Dirga Vyadhi*, so it is more curable when less chronic. Therefore, it should be treated as soon as possible for better results.
- As *Eka- Kushta* is a *Vata-Kapha* dominate disease, *Vata-Kapha Shamaka* and *raktashodhaka* treatment should be given, *Nimbadi Churna* fulfils the above criteria.
- Overall effect is that in 50.00% i.e. 15 out of 30 patients cases, moderate improvement is seen, 46.66% cases shown marked improvement, 03.33% cases shown mild improvement and 0.00% cases were having no change in their symptoms.

REFERENCES

1. A P I Textbook of Medicine: Edited by G. S. Sainani, 6th Edition, 2001.
2. Chatterjee C.C. – Human physiology Vol.-I, Medical Allied agency, Calcutta IX Ed. 1982.
3. Davidson's principles and practice of medicine; Edwards Christopher; Boucher I.A.D., E.L.B.S. - xvi, Ed. Hongkong.1991.
4. Charaka Samhita with Ayurveda Dipika Comm. of Chakrapani, Ed.Yadavaji Trikamji Acharya, Chaukhamba Sanskrit series.
5. Sushruta Samhita- Sushruta, with Nibandha Samgraha and Nyayachandrika Panjika Comm, Yadavji Trikamji, Ed. 1980.
6. Sushruta Samhita, Dr. Ambika Dutta Shashtri. Ed. 9th 1995.
7. Bhava Prakasha- Bhavamishra, Ed. By Brhmashankar Shastri, Chaukhamba Sanskrit Series, Varanasi (1984).
8. Essentials of Medical Physiology- K. Sembulingam, Prema Sembulingam, 7th Ed.2016.
9. Common Skin Diseases- Roxburgh, 16th ed., ELBS, London.