

Evaluation of the efficacy of vishaghna gana lepa and vishaghna gana kashaya in the management of mukhadushika (acne vulgaris)

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Abstract- Incompatible foods, pesticide poisoning, adulteration of food and beverages, particularly carbonated coloured drinks, accumulation of various toxins, routine use of chemicals in the form of cosmetics, adulteration used in various products, etc., do not get metabolized in our body and therefore get accumulated causing health issues. In Ayurveda, this concept is described as gara visha. Lepana, or dermal absorption, is one way that these chemicals might enter the body among other ways. It leads to the doshas in the body becoming vitiated, which in turn results in a number of diseases. Acne and comedones, which in Ayurveda are referred to as the illness mukhadushika, are among the most common and growing dermatological issues. This problem tends to get worse when people consume fast food, junk food, cold drinks, or even if they utilise cosmetics frequently. Hence, Gara visha is established as a contributing factor for mukhadushika since the growth in the incidence of the condition and the increase in exposure to gara visha are simultaneous. In order to ascertain if Vishaghna Mahakashaya, in the form of Lepa and Kashaya, was efficient in treating Mukhadushika, a clinical investigation was carried out. The worldwide acne grading system was used to record the findings and evaluate the severity of acne. The treatment's effect on papules, pustules, and comedones was statistically significant at P 0.001 and P 0.05, respectively. Vishaghna Mahakashaya was subsequently effective in lowering mukhadushika, or acne and comedones, by eradicating the accumulated Gara Visha.

Key Words: Mukha dooshika, vishagna gana mahakashaya, gara visha, acne, comedones, lepa

INTRODUCTION:

The rising usage of synthetic items for consumption and application has increased our exposure to several chemicals nowadays. Incompatible foods, pesticide poisoning, adulteration of food and beverages, particularly carbonated coloured drinks, routine interaction with hazardous chemicals in the form of cosmetics, routine exposure to harmful chemical detergents, etc. are some instances of modern-day toxic exposure. Since most of these compounds can't be metabolised or excreted, they accumulate in our bodies. This accumulation of chemicals eventually interferes with the body's ability to function normally, leading to a number of disorders. During the discussion of gara visha, Ayurveda clarified this idea. Which is the solution for many of the idiopathic illnesses all over the world. Depending on their affinity, these accumulated chemicals can reach the circulation and cause rakta dusti. Therefore, mukha dooshika is one of the skin disorders that this dusta rakta might produce. Acne and comedones, the two most common skin conditions, are associated to this illness. They are typically chronic, recurrent, and being treated today. Here, a clinical research is carried out to cure acne and comedones while taking gara visha into consideration. Therefore, vishagna mahakashaya, which is composed of ten components described by Acharya Charaka, was utilised in the form of lepa and Kashaya in order to evaluate its impact on acne and comedones.

MATERIALS AND METHODS:

Vishaghna Gana Maha Kashaya:

The 10 ingredients of Vishaghna Gana Mahakashaya are *Haridra, Manjista, Suvaha, Sukshma Ela, Palindi, Chandana, Kataka, Shirisha, Sinduvara, Sleshmantaka*. They were collected from Rasashastra and Bhaishajya Kalpana Department, Sri Dharmasthala Manjunatheshwara College and Hospital, Hassan, Karnataka.

Preparation:

All the 10 ingredients were taken in equal quantity and subjected into *shodhana* process (remove foreign particles) after that drugs are dried; half the quantity was made into fine powder (for lepa) and half into course powder (for kashaya) then packed into airtight cover separately.

Lepa Churna: Each packet contains 100gms of *Vishaghna Gana Lepa* for external application. *Lepa churna* will be mixed by adding water sufficient to make the *Lepa*. Freshly prepared *Lepa* will be applied on the affected area once in the morning and will be removed just before its drying.

Kwatha Churna: Each packet contains 100gms of *Vishaghna Gana Kwatha Churna* for internal administration and was advised to prepare fresh kashya as 8 parts of water + 1 *Pala* of *kwatha churna* will be taken and soaked for 1-2 hours. Then the soaked mixture is heated on *Mandagni* till it is reduced to 1/4th.

MATERIALS AND METHODS:

Type of Study:

Clinical study to evaluate the efficacy of *Vishaghna Gana Lepa* and *Vishaghna Gana Kashaya* in the management of *Mukhadushika*.

Duration of Study:

Vishaghna Gana Lepa and *Vishaghna Gana Kashaya* were given internally and externally during the course of the 15-day study. On the fifteenth day, a follow-up was conducted.

Method of administration:

1. *Vishaghna Gana Lepa* with *sheeta jala* for external application
2. *Vishaghna Gana Kashaya* for internal administration after food 15ml TID

Source of Data:

A minimum of 30 patients were involved in this study. Following screening, patients were chosen from the OPD's of Sri Dharmasthala Manjunatheshwara College and Hospital, Hassan. Before adding the patients to the study, inclusion and exclusion criteria were properly taken into account.

Selection of Patients:

After meeting the inclusion and exclusion requirements, 30 patients were randomly assigned to a group, and prior to the trial, informed consent was acquired from each patient. A Case Sheet Performa (included) was used to record the whole history, which included the time of onset, duration, family history, and history of personal and familial systemic disorders. A thorough dermatological examination was conducted on the patients.

Inclusion Criteria:

- Patients between 15-30 years of age.
- Patients with symptoms of *Mukhadushika*.
- Subjects ready to sign the informed consent form.

Exclusion Criteria:

Mukhadushika due to other systemic diseases will be excluded.

- Pregnant women
- Women using oral contraceptives.

In the case sheet created for this study, all the symptoms were noted both before and after treatment.

Diagnostic Criteria:

The symptoms of *Acne vulgaris* i.e. Comedones, papules, pustules, nodules

Assessment Criteria:

Using the Global Acne Grading System, the affected area was analysed before and after treatment. The outcomes were evaluated based on the change in parameters before and after the therapy.

Assessment of Results:

Results were evaluated using a comparison of the subjective and objective criteria from the baseline to the post-medication period. All of the findings were analysed using the SPSS version 20 software, and the 'p' value was calculated using Friedman's Test with Bonferroni correction to determine the significance of parameter changes within the group. Friedman's Test-significant parameters were subjected to a Wilcoxon signed rank test for post hoc analysis with Bonferroni correction.

RESULTS

Version 20 of SPSS software was used for the statistical analysis. For statistical analysis, 30 fulfilled patients were chosen. The significance of a parameter change was examined using Friedman's test with Bonferroni correction.

To assess the timing of a significant change, a Wilcoxon sign rank test was conducted post hoc with Bonferroni correction on parameters that demonstrate significance in Friedman's test. The observed data were classified as Significant (S): P 0.05 in statistical terms. P 0.001 is Highly Significant (HS). 30 patients were registered for the trial overall, and all of them completed the study.

After treatment, the X^2 value (Friedman's test) demonstrated improvement in the decrease of overall acne, which was statistically Highly Significant at P 0.001.

When results for the variable overall acne were compared before and after treatment, the Wilcoxon signed rank test revealed statistically Highly Significant at level of P 0.001 with $Z = -4.187$ and $P = .000$

DISCUSSION

The *Rasapanchaka*'s which is present in *Vishaghna Mahakashaya* drugs, is what makes them effective in curing disorders induced by *visha*. Numerous research on medications imply their immunomodulator Anti-stress, adaptogenic Nootropic, and Antioxidant effect. These characteristics of medications enable them to cure allergic skin conditions brought on by different *Asatmya aahar-vihaar*, *Dushivisha*, *Garavisha*, as well as by touch or by their external application, etc.

The list of ten medications in Vishaghna Mahakashaya In order to lessen the dosha dushti of Mukhadushika, 5 medications are kapha- vata hara and 3 drugs are kapha- pitta hara, since kapha- vata or kapha- pitta are the doshas that lead to the creation of Mukhadushika. Additionally it reduces pustule and nodular symptoms.

The majority of the medications in Vishaghna Mahakashaya have a tikta-katu-kashaya rasa, including haridra, suvaha, manjista, shirisha, sindhuvara, chandana, and kataka, which reduces pidaka, kandu, srava, and other types of twak vikaras.

Seven medications, namely haridra, manjista, suvaha, ela, chandana, shirisha, and sindhuvara, possesses Katu vipaka, which has ruksha guna and sleshmahara qualities. As a result, it aids in reducing the pustules and nodular lesions of acne.

Five drugs—haridra, manjista, suvaha, shirisha, and sindhuvara—all have ushna virya, which possesses the dosha karma of vatahara and kapha vilayana as well as the karmukata of pachana and swedana. Thus, the ducts are cleared and the appearance of comedones, papules, etc. is decreased.

Five substances, namely ela, paalindi, chandana, kataka, and sleshmataka, have sheeta virya that possesses the karmukata known as prahladana, visyandana, prasadana, jeevana, and rakthaprasanada by which they nourish the skin and blood circulation.

Curcumin from *Curcuma longa*, Petroleum ether extract from *Rubia cordifolia* roots, Ethanolic extract from *Alpin galanga*, oil extracted from *Elettaria cardamom* seeds, santalols, an essential oil from *Santalum album*, Methanolic extract from *Albizia lebbeck*, and leaves from *Vitex negundo* are having anti-inflammatory action when looking at the chemical component of the Vishaghna Gana drugs.^{1,2,3,4,5,6,7,8}

The anti-bacterial, anti-inflammatory, antioxidant, anti-androgenic, immunomodulator, hepatoprotective, and blood purifying properties of *Rubia Cordifolia* function as one of the anti-acne effects. The proliferation of *P. acnes* is inhibited by *Rubia.c's* methanol extract.²

Santalum album has the antagonistic action on intestinal spasm caused by acetylcholine, histamine and barium chloride.³

Drugs like *C. longa*, rubiadin of *R. cordifolia*, Ethanolic extract of *V. negundo*, oil of *S. album* are proved to have Anti-oxidant property.

Extract from *H. indicus* has been shown to purify blood, be anti-itching, and lessen suppuration. Additionally, it supports IgG immunoglobulin synthesis.⁶

CONCLUSION

Tikta Rasatmak, Rakta shodhan, and Ushna Veerya qualities of the formulation, which pacify Vata and Kapha as well as Rakta Dushti, are responsible for the satisfactory results observed in lowering the symptoms of Mukhadushika by Vishaghna Gana Lepa. The anti-oxidant, immunomodulator, hepatoprotective, and antagonistic qualities of Vishaghna Gana Kashaya might have helped to calm the Visha that Gara Visha caused in the body. Due to *laghu-ruksha guna* of drugs, it has caused dryness of skin in most of the patients.

Based on the research, we can conclude that Vishaghna Gana Lepa and Vishaghna Gana Kashaya contribute to the Samprapthi vighatana of Gara Visha Causing Mukhadushika.

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TABLES

Table No.1 – Status of patients:

Status	No. of Patients
Screened	40
Registered	32
Drop outs	02
Completed	30

Table No.2 - Gender:

GENDER	NO. OF PATIENTS
Male	07
Female	23

Out of 30 patients, 23 were females and 07 males.

Table No.3 – Religion:

Religion	No. of patients
Hindu	26
Muslim	03
Christian	01

Out of 30 patients, 87% were Hindu, 10% were Muslim and 3% was Christian.

Table No.4 – Occupation:

Occupation	No. of Patients
Students	22
Working	04
Non-Working	04

Out of 30 patients, 73% were Students, 13.3% were working and 13.3% were Non-Working.

Table No.5 – Mode of Exposure:

Mode of exposure	No. of patients
Junk food	10
Virudha ahara - junk food	09
Cosmetics	07
Virudha ahara	04

Out of 30 patients, 23% were Cosmetics, 33% were Junk Food, 30% were Viruddha Ahara- Junk Food, 13% Viruddha Ahara

Table No. 6– Subjective Parameters:

Associated complaints	No. of patients
Pain	21
Redness	20
Itching	16
Oiliness	17
Dryness	13

Table No.7 – Comedones before treatment (BT):

Comedones BT	No. of patients
Fore head	13
Right cheek	19
Left cheek	19
Nose	08
Chin	09
Upper back	0

Table No.8 – Comedones after treatment (AT):

Comedones AT	No. of patients	
	Present	Absent
Fore head	11	02
Right cheek	15	04
Left cheek	15	04
Nose	06	02
Chin	04	05
Upper back	0	0

Table No.9 – Papules before treatment:

Papules BT	No. of patients
Fore head	23
Right cheek	27

Left Cheek	27
Nose	04
Chin	12
Upper back	06

Table No.10 – Papules after treatment:

Papules AT	No. of patients	
	PRESENT	ABSENT
Forehead	09	13
Right cheek	12	15
Left cheek	14	13
Nose	01	03
Chin	04	08
Upper back	05	01

Table No. 11– Pustules before treatment:

Pustules BT	No. of patients
Fore head	11
Right cheek	25
Left cheek	22
Nose	02
Chin	09
Upper back	02

Table No.12 – Pustules after Treatment:

Pustules AT	No. of patients	
	Present	Absent
Fore head	03	08
Right cheek	09	16
Left cheek	07	12
Nose	0	02
Chin	0	09
Upper back	01	01

Table No. 13– Nodules Before Treatment:

Nodules BT	No. of patients
Fore head	11
Right cheek	25
Left cheek	22
Nose	02
Chin	09
Upper back	02

Table No.14– Nodules after Treatment:

Nodules AT	No. of patients	
	Present	Absent
Fore head	03	08
Right cheek	09	16
Left cheek	07	12
Nose	0	02
Chin	0	09
Upper back	01	01

Table No.15 – Global Acne Grading System Grade:

Below table shows the Reduction in the severity of Acne After treatment

Grades	No. of grade	
	BT	AT
Grade 1	04	21
Grade 2	09	04
Grade 3	06	02
Grade 4	11	03

FIGURES

