



Efficacy of *virechana karma* in the management in the acne vulgaris: A clinical study

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Abstract

Acne Vulgaris is an extremely common skin condition involving the sebaceous gland. The pilosebaceous unit of the skin gets affected in acne. The age group, which is affected, is of adolescent but the problem can continue to exist till middle age sometime. It affects approximately 80% of the adolescents around the world. Acne Vulgaris can be correlated with *Mukhadushika* or *Yuvanpidika* on the basis of similarity in the etiopathogenesis, symptoms, treatment & complication. As the patient of Acne become concern after long ineffective modern treatments, so *Ayurveda* is a ray of hope and is frequently sought by the public. Therefore, to identify an alternative, safer and permanent cure; the study is conducted.

Key words: Acne, *Virechana karma*

Introduction

According to Ayurveda, among the 56 Upangas face is at the top, so everyone and mostly youngsters are most cautious and careful about the beauty of face. Face is index of mind and mirror of the body. Unfortunately, skin of the face is affected by certain anomalies in adolescence age which is the golden period of life. Although generally considered to be a benign, self-limiting condition, acne may cause severe psychological problems or disfiguring scars that can persist for a lifetime. Acne Vulgaris is a common skin disorder of pilosebaceous unit that primarily affects the face, chest and back which if not treated may lead to permanent scarring. It is a pleomorphic disorder and can manifest at any time during life but it most commonly presents between ages 10-17 years in females and 14-19 years in males (Parthasarathy, 2016). In 2010, acne was estimated to affect 650 million people globally making it the 8th most common disease worldwide (Global burden of disease, 2013). Acne starts at the age of In Ayurveda, it is termed as Mukhdooshika. In Ayurveda Mukhdooshika is described under the heading of Kshudra-roga. Yuvanapidaka [acne vulgaris] is described in Kshudraroga [minor skin diseases] (Sushruta Samhita Nidana Sthana 13/3, 2009). Due to aggravation of Kapha[phlegum],

Vata [air] and Shonita [blood], Pidaka [papules] resembling the sprouts on the bark of Shalmali tree (*Salmaalial malabarica*) appearing on the face of adolescents is known as Yuvanapidaka, which make the face ugly (Sushruta Samhita Nidana Sthana 13/38, 2009). Management of Acne vulgaris in modern medicine has very low spectrum as it has often limits with corticosteroids, antibiotics and antinflammatory drugs. All these drugs have good effect instantaneously but fail to prevent reoccurrence. Looking into the above mentioned facts there is a need for a treatment which can treat effectively as well as reduces the recurrence of acne vulgaris. As per *Ayurvedic* discription the disease has *Kapha*, *Vata* and *Rakta* involvement so according to development of disease treatment should have *Shodhana* property. So we have taken *Virechana* as *sarvadehic shodhana karma* (Agnivesa, Charaka Samhita, 2009). **Also sushrut has mentioned Virechana karma in skin disorder in Kushtha prakarana** (Sushruta Samhita Chikitsa Sthana9/47, 2009). In *Ayurvedic* texts, *Vamana Karma* and *Raktamokṣana* are chief purificatory procedures (Sushruta Samhita Chikitsa Sthana20/37, 2009). mentioned for the treatment of *Mukhdooshika* along with dozens of topical applications and oral medications. As *Vamana Karma* is an exhaustive and has more complication then other procedures, most of the patients of *Mukhdooshika* belong to *Sukumar Prakriti* and

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student profile so *Raktamokshan* is also a little painful procedure; therefore *Virechana* is more suitable for them as a *shodhana* procedure. *Virechana* is a method, which is much safer, less complicated and an almost painless procedure as compared to others. Thus, it is recommended for *Mukhdooshika* management & it is widely used as *Sodhana* therapy in routine now. In addition to the acceptability and popularity, the *Virechan Karma*, is considered the best treatment for morbid and increased *Pitta Dosha* and it is more useful in eradicating the diseases originated from the vitiated *Pitta*. *Pitta* is closely related with *Agni*, which is responsible for the digestive and metabolic processes in the body. *Virechana* can provide a safe and economic remedy for this common ailment. Present research was selected to study efficacy of 'VIRECHANA KARMA' in the management of Acne vulgaris.

AIMS AND OBJECTIVES

- 1) To evaluate the effect of *Virechana karma* in the management of *Acne vulgaris*.
- 2) To identify a safe and effective *Ayurveda* treatment for Acne Vulgaris with minimum/no recurrence.

MATERIALS AND METHODS

In this study a total 22 patients were registered and 18 patients completed the whole trial.

Source of data

Patients indicated and fit for trial were selected from outpatient and inpatient department of *Panchkarma* and *Kaya-chikitsa*, Rishikul State Ayurvedic (P.G.) College and Hospital, Haridwar.

Methods:

Statistical method: Wilcoxon sign rank test

Patient consent: The treatment procedure with its different steps and the outcome was properly explained in detail to the patients and a written consent from the patients was obtained before enrolling in the clinical study.

Diagnostic Criteria: Patients were thoroughly examined. Detailed history pertaining to previous ailment, previous treatment history, family history, habits, physical examination and systemic examination findings were noted. Subjects were registered in the clinical trial and detail information was documented in the case proforma prepared for the study. Diagnosis was made on the basis of typical lesions found in acne vulgaris i.e. comedones, papules & pustules including Nodules,

cysts and Scars found in advanced cases of the disease.

Inclusion criteria:–

- Age: 15-30 years.
- Patients of either sex were taken.
- Patient fulfilling the diagnostic criteria of Acne vulgaris.
- Patients fit for *Virechana karma*.
- Patient willing to participate in above mentioned trial with informed consent.

Exclusion criteria:–

- Age <15 years and >30 years.
- Patient not fit for *Virechana karma*
- The patient having any systemic complicated illness
- Any other skin diseases.
- Patient with acne on regions other than face.
- Known cases of Diabetes Mellitus.

Interventions:–

- Patients were administered with 2 sittings of *Virechana karma* in 60 days, with the interval of 15 days in between. During the interval Placebo was given.
- Assessment was done on every 15 days of patients.
- **Period of study :-** 60 days
- **Follow up period:-** 30 Days.

Lab investigations: These investigations were carried out before the initiation of trial to rule out any systemic illness.

- Hb%, T.L.C., D.L.C., E.S.R.
- Random Blood Sugar
- BT/CT
- LFT

Grading and overall assessment scale:

Effect of the therapies were compared before and after the treatment on the basis of self-formulated scoring scales based on subjective parameters associated with the disease.

Table 1. Showing different parameters

Subjective parameters:-	Subjective parameters:-
➤ Type of Lesion (According to grade)	➤ Inflammation
➤ Comedones	➤ Pain
➤ papules	➤ Secretion
➤ Pustules	➤ Itching
➤ Nodules	➤ Burning Sensation
➤ Cysts	
➤ Scars	



Table 2. Grading of subjective parameter: Chief grading system

1. Lesions	GRADE
No lesion	0
Comedones [occasional papules]	1
Papules, Comedones, few Pustules	2
Predominant pustules, nodules, cyst	3
Widespread Scars, comedones, papule, pustule, nodule	4

Table 3. Grading for type of lesion

No. of Comedones, Papules, Pustules, Nodules, Cyst, Scar	GRADE
No of lesions	0
1-5	1
6-10	2
11- 15	3
16-20	4

Table 4. Showing grade pattern

Inflammation, Pain, Secretion Itching, Burning	GRADE
No symptom	0
Mild	1
Moderate	2
Severe	3

Table 5: Showing the effect of therapy on subjective parameters (Wilcoxon sign rank test)

SYMPTOMS	N	Median		Wilcoxon Significant med Rank W	P-Value	% Effect	Result
		BT	AT				
Comedones	18	3.0	1.0	-171.0	<0.001	61.9 %	Highly Significant
Papules	18	2	0	-210.0	<0.001	64.28%	Highly Significant
Pustules	7	0	0	-6.0	>0.05	37.5%	Insignificant
Nodules	17	2	1.5	-45.0	<0.05	28.12%	Significant
Cyst/Abscess	4	0	0	-1.0	>0.05	25%	Insignificant
Scar	18	2.0	2.0	0	>0.05	0%	Insignificant
Inflammation	11	1.000	0.000	-66.0	<0.001	85.71%	Highly Significant
Pain	17	1.500	1.000	-120.0	<0.001	59.26%	Highly Significant
Secretion	18	1.000	1.000	-10.0	>0.05	25%	Insignificant
Itching	14	1.000	0.000	-105.0	<0.001	73.68%	Highly Significant
Burning	5	0.000	0.000	-3.0	>0.05	33.33%	Insignificant

Overall percentage improvement of each patient was calculated by the following

$$\text{Formula: } \frac{\text{Total BT} - \text{Total AT}}{\text{Total BT}} \times 100$$

The result thus obtained from individual patient was categorized according to the following grades:

Marked Improvement $\geq 75\%$ relief

Moderate Improvement $\geq 50\%$ up to 74% relief

Mild improvement $\geq 25\%$ up to 49% relief

No improvement $\leq 24\%$ relief

Follow up: After follow up period of 1 month, patients showed delayed recurrence. This shows that *Virechana* gives long term effect due to *Sarvdehic Srotoshodhana*.

Results and Discussions

In the present study 22 patients were registered out of which 18 patients completed the trial. The pattern of clinical improvement in various subjective parameters were recorded and measured statistically, by using Graph pad instat 3.



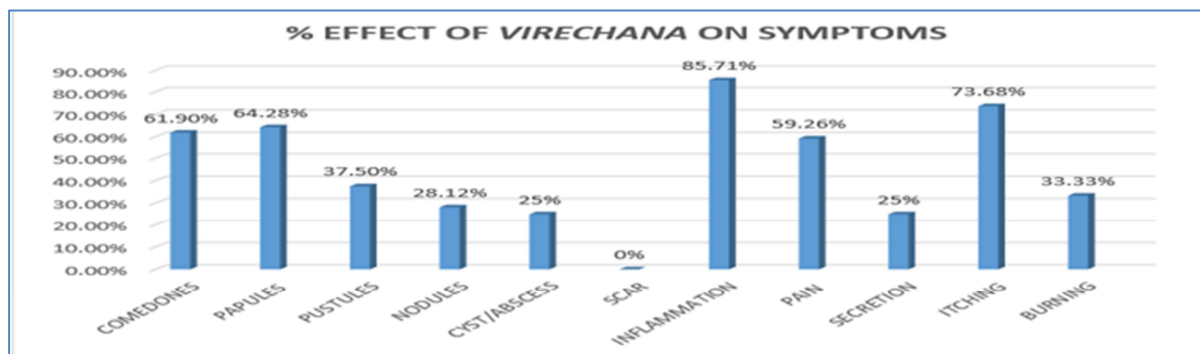


Fig 1.

Analysis of subjective parameters as per table no.5:

BT-Before Treatment, AT-After treatment

On assessment of subjective symptoms it was found that effect of group A on Comedones, Papules Inflammation, Pain and Itching was highly Significant as value of $p < 0.001$ in each while result was significant in Nodules & Insignificant ($p > 0.05$) in remaining symptoms (Secretion, burning, Pustule, Cyst, Abscess, Scar).

Results of Virechana karma:

1. Statistically Highly Significant results were found in Comedones and papular lesions.
2. Statistically Highly Significant results were found in reducing Inflammation, Pain and Itching.
3. Percentage wise, maximum result was found in 61.9% reduction was found in no. of comedones and 64.28% reduction were found in Papules while 37.5% relief was found in Pustules count, 25% relief was found in Cyst followed by 28.12% reduction in no. of Nodule. On Scars count 0% result was obtained.
4. In associated symptoms, 85.71% improvement was seen in Inflammation, followed by 73.68% improvement in Itching. 59.26% relief in Pain was observed while Burning was relieved by 33.3% and only 25% relieved in Secretion.

Probable mode of action of virechana:

Obtained result data suggests that *Virechana karma* was most effective on comedones and papular lesions. It was found to be highly beneficial in reducing Inflammation, Pain and Itching. *Virechana* is targeted to expel increased *Pitta Dosha* out of the body i.e. *Srotoshodhana*. As we

know that *Rakta* is said to be *Pitta Sadharmi* so it will pacify vitiated *Pitta* as well as vitiated *Rakta* and also by this *Srotoshodhana*, vitiated *Pitta* as well as *Kapha* which were residing in the blood get removed. This *Shodhana* reduces the lesions i.e. *lesions* which were occurring due to *Rakta-dusti*. Also, it subsides the associated symptoms that were occurring due to the vitiated *Pitta* like *Inflammation, Pain, Secretion, Burning*. As relief was seen in *Kapha* symptoms i.e. *itching* as well, therefore *Virechana* must be removing vitiated *Kapha* also, to some extent. *Srotoshodhana* causes *anulomana* of trapped *Vata*, therefore reduction in *Pain* was also observed. Effect of *Virechana* was more pronounced on comedones and papules in comparison to nodule, cyst and scar. The rationale behind this seems to be that comedones were occurring in a widespread manner all over the face while nodules and pustules were localized to few areas only and *Virechana* has *Sarvadehik Shodhana* property. That's why the effect of *Virechana* was found to be more on those lesions. *Drugs used in Virechana* has *Ushna Virya* and *Srotoshodhaka* properties which pacifies the vitiated *Kapha* and *Sadharmi Dhatu (Meda)*, so due to which comedones resolve. Also due to *Sukshma Guna & Vyavayi Guna*, it penetrates minute channels clearing the *Srotavarodha* and causes *Vishyandana* of the *Kapha & Sadharmi Dhatu*, thereby reduced the *Kaphaja* lesions i.e. comedones and papules as well as *Kaphaja* symptoms especially *Inflammation, Itching*. *Tikshna Guna* of drugs must have helped in reducing *Medogarbhata* by penetrating micropores and further reducing accumulated *Kapha* and *Meda* inside them and ultimately reducing no of comedones, papules and nodules.





BT

AT

Fig 1. Images of patient



BT

AT

Fig 2. Images of patients

Table 7.

	MODE OF ACTION
<u>Deepan</u>	Enhances appetite and in pacifies vitiated <u>Vata dosha</u>
<u>Snehapan</u> , <u>Abhyang</u> & <u>Swedana</u>	is said to be expels vitiated <u>Doshas</u> from <u>Shakha</u> to <u>Kostha</u> . By virtue of its property <u>ghrita</u> is <u>pittashamak</u> and <u>agnideepak</u> .
<u>Virechana</u>	is targeted to expel increased <u>Pitta Dosha</u> out of the body. As we know that <u>Rakta</u> is said to be <u>Pitta Sadharmi</u> so it will pacify vitiated <u>Pitta</u> as well as vitiated <u>rakta</u>
<u>Sansarjana kram</u>	<u>Sanshaman</u> to subside remaining <u>doshas</u> after <u>sanshodhan</u> .

Conclusion

- Majority of patients were of age group 20-24years (43.18%) and 15-19 years (40.90%).
- Premenstrual flare was seen in 80% of the patients.
- 65.9% were of Pitta-Kapha Prakriti while all the patients were having either Pitta or Kapha or both Pitta- Kapha as dominant Dosha involved in their disease.
- Statistically Highly Significant results were found in Comedones and papular lesions.
- Statistically Highly Significant results were found in reducing Inflammation, Pain and Itching.

- The study reveals that *Virechana karma* is effective for longer duration and rate of recurrence is also lesser in *Virechana*.

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