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

Sharma Lalita, Srivastava Alok and Shukla Gyanendra Datta

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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 Yuvanapidika 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 Upangs 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 13/38, 2009). Due to aggravation of Kapha [phlegm], Vata [air] and Shonita [blood], Pidaka [papules] resembling the sprouts on the bark of Shalmali tree (Salmalia malabarica) appearing on the face of adolescents is known as Yuvanapidika, 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 sushruta has mentioned Virechana karma in skin disorder in Kushtha prakarana (Sushruta Samhita Chikitsa Sthana20/37, 2009). In Ayurvedic texts, Vamana Karma and Raktamokṣana are chief purificatory procedures (Sushruta Samhita Chikitsa Sthana9/47, 2009). In Ayurvedic texts, Vamana Karma and Raktamokṣana are chief purificatory procedures (Sushruta Samhita Chikitsa Sthana9/47, 2009). In Ayurvedic texts, Vamana Karma and Raktamokṣana are chief purificatory procedures (Sushruta Samhita Chikitsa Sthana9/47, 2009). In Ayurvedic texts, Vamana Karma and Raktamokṣana are chief purificatory procedures (Sushruta Samhita Chikitsa Sthana9/47, 2009). In Ayurvedic texts, Vamana Karma and Raktamokṣana are chief purificatory procedures (Sushruta Samhita Chikitsa Sthana9/47, 2009).
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

| Lesion                                      | GRADE |
|---------------------------------------------|-------|
| No lesion                                   | 0     |
| Comedones (confluent) papules               | 1     |
| Pustules, Comedones, few Pustules           | 2     |
| Predominant pustules, nodules, cyst         | 3     |
| Widespread Scar comedones papules, pustule, nodule | 4     |

Table 3. Grading for type of lesion

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

Overall percentage improvement of each patient was calculated by the following formula:

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

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

- **Marked Improvement**: ≥75% relief
- **Moderate Improvement**: ≥50% up to 74% relief
- **Mild improvement**: ≥25% up to 49% relief
- **No improvement**: ≤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.

Table 5: Showing the effect of therapy on subjective parameters (Wilcoxon sign rank test)
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 following 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-duṣṭi. 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.
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**Fig 1. Images of patients**

**Fig 2. Images of patients**

**Table 7.**

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

**Conclusion**

- Majority of patients were of age group **20-24 years (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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