PHARMACEUTICO-ANALYTICAL STUDY AND CLINICAL EVALUATION OF MODIFIED CREAM FORM OF *SAHACHARA GHRITA* ON *MUKHDUSHIKA* WITH SPECIAL REFERENCE *TO* ACNE VULGARIS: A RANDOMIZED CONTROLLED TRIAL.

Abstract

Introduction: *Mukhadushika* (acne vulgaris) is a common skin disorder that affects appearance, confidence and quality of life in young adults. Conventional therapies often have limitations such as prolonged treatment, side effects and recurrence. Ayurveda describes *SahacharaGhrita* as a classical remedy for *Mukhadushika*. To improve cosmetic acceptability and patient compliance, this study reformulated *SahacharaGhrita* into a cream and evaluated its efficacy against *Shalmali Kantaka Lepa*.

Methods: An RCT on 60 patients (18–30 yrs) with *Mukhadushika* compared *SahacharaGhrita* cream (Group A, n=30) and *Shalmali Kantaka Lepa* (Group B, n=30) for 30 days, followed by 15 days of observation. Pharmaceutical preparation and analytical standardization of *SahacharaGhrita* and its cream were performed. Clinical outcomes were assessed using subjective and objective parameters including *Saruja Pidaka*, *Shotha*, No. of *Pidaka*, comedones, papules, pustules, nodules and Investigator's Global Assessment (IGA).

Results: Both groups showed significant improvement. Group A demonstrated superior relief in *SarujaPidaka*, *Shotha*, *Ghana Pidaka*, No. of *Pidaka*, closed comedonesand open comedones. Patients preferred the cream for its smooth, non-greasy texture and cosmetic appeal. No adverse effects were reported.

Conclusion: The modified creamformof*SahacharaGhrita* cream proved to be a standardized, stable and clinically effective topical dosage form for *Mukhadushika*. It offered superior therapeutic outcomes and patient acceptability compared to *Shalmali Kantaka Lepa*, making it a promising Ayurvedic intervention for acne vulgaris.

Key words:*Mukhadushika*, Acne vulgaris, *SahacharaGhrita*, *Shalmali Kantak Lepa*

Introduction

Rasashastra and *Bhaishajya Kalpana* represent a specialised branch of Ayurveda concerned with the preparation of medicines from herbal, mineral and herbo-mineral sources. This discipline emphasises purification, incineration and pharmaceutical processing, while integrating modern analytical techniques to ensure safety, reproducibility and therapeutic effectiveness.

The skin, being the largest organ of the body, is described in *Charaka Samhita* as a vital sense organ (*Sparshendriya*). [(1)]Among its many disorders, *Mukhadushika* is one of the most common, particularly during adolescenceand is classified under *Kshudraroga*.[(2)(3)]Classical texts such as *Sushruta Samhita*[(4)], *Ashtanga Samgraha*, *Ashtanga Hriday*[(5)], *Yogratnakar*[(2)] and *Bhavaprakasha* described painful eruptions resembling the thorn of the *Shalmali* tree, filled with *Meda*, which diminish facial beauty. This condition is also termed *Yauvanpitika*or *Tarunyapitika* and in modern dermatology it corresponds to Acne vulgaris.

Ayurveda attributes its origin to disturbances in *Vata*, *Kapha* and *Rakta*,[(4,5)(6)] Modern science identifies multiple etiological factors including excessive sebum production, microbial activity (*Propionibacterium acnes*), ductal blockage, inflammation and genetic predisposition. [(7)]

Therapeutic approaches in Ayurveda include *Nidanparivarjan* (elimination of causative factors), *Shodhana Chikitsa* (purification therapies) and *Shamana Chikitsa* (palliative measures). Both internal (*Antahparimarjan*) and external (*Bahirparimarjan*) treatments are employed. External therapies such as *Abhyanga* (massage with medicated oils or *Ghrita*) and *Lepa* (herbal pastes) act directly on the skin through *Bhrajak Pitta*. *Bhaishajyaratnavali* specifically mentions *SahacharaGhrita* for *Mukhadushika*.[(8)] Its ingredients—including *Sahachara*, *Dashmoola*, *Shirisha*, *Panchkola*, *Vidanga*, *Panchlavana*, *Kshartraya*, *Vrishchikali*, *Girisindura*, and *Gairika*are described as *Kapha-Vata Shamaka*, *Rakta Prasadana*, *Shothahara*, *Lekhana*, *Krimighna*, *Kushtaghna* and *Vranaropana*. Modern pharmacological studies further support their anti-inflammatory, antimicrobial, antioxidant, wound-healing and sebum-regulating properties.

The pharmaceutical basis lies in *Sneha Kalpana*, which involves preparing medicated oils or *Ghrita* using herbal pastes (*Kalka*) and decoctions (*Kwatha*) under controlled heating. However, direct application of *Ghrita* poses practical challenges. Cream formulations, being cosmetically acceptable and easy to apply, offer a modern patient-friendly alternative.

In this study, *Shalmali Kantaka Lepa*considered a controlled drug. [(9)]

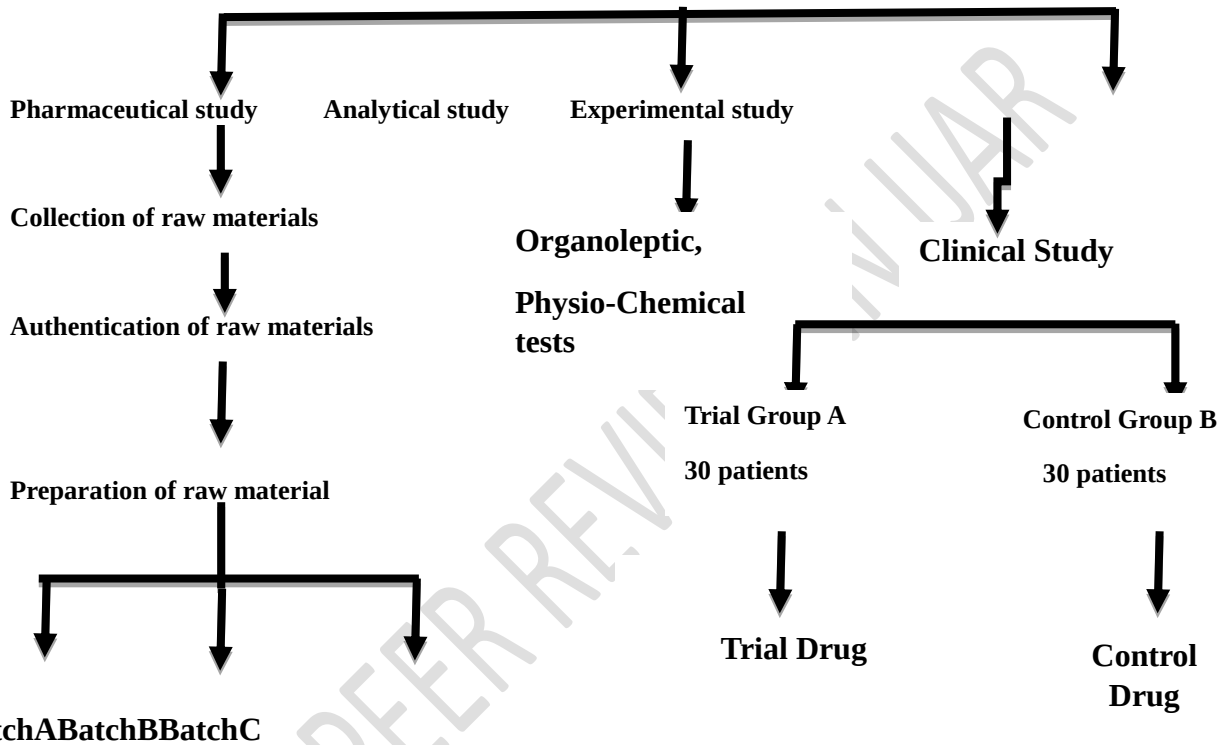
Need of Study

- Acne vulgaris affects nearly 80% of adolescents and young adults, often causing psychological distress. [(10)]
- Untreated acne may result in permanent scarring; early intervention improves quality of life.
- Ayurveda offers effective alternatives; validating *SahacharaGhrita* strengthens traditional medicine integration.

- Developing a cream formulation ensures easier application, better compliance and modern relevance.
- The study aims to prepare, standardize and clinically evaluate *SahacharaGhrita* cream for *Mukhadushika*, generating evidence for its pharmaceutical quality, therapeutic efficacy and translational potential.

Materials and Methods

Study design



PHARMACEUTICAL STUDY

1)Collection of raw materials

All raw materials wereprocured fromauthentic reliable sources.

2)The raw material was authenticated.

3) Pharmaceutical

1. *Sahachara Ghrita*: It contain following Ingredients

Table No. 1 Ingredient of *SahacharaGhrita*

Sr. No.	Ingredient	Part Used	Quantity
Sneha Dravya			
1	*Murchhita Go-Ghrita*		965 g
Kwatha Dravya			
1	*Sahachara*[12][13][14]	*Panchanga*	3 kg
2	*Shirisha*[15][16][17]	Stem bark	3 kg
	Dashmool[18]		
3	*Bilva*[19][20]	Root	300 g
4	*Agnimantha*[21]	Root	300 g
5	*Shyonaka*[22]	Root	300 g
6	*Gambhari (Kashmari)*[23]	Root	300 g
7	*Patala*[24]	Root	300 g
8	*Brihati*[25]	Root	300 g
9	*Kantakari*[26]	Root	300 g
10	*Gokshura*[27]	Root	300 g
11	*Shalaparni*[28]	Root	300 g
12	*Prishniparni*[29]	Root	300 g
KALKA DRAVYA			
1	*Pippali*[30]	Fruit	15 g
2	*Pippalimoola*	Root	15 g
3	*Chavya*[31]	Root	15 g
4	*Chitraka*[32]	Root	15 g
5	*Shunthi*[33]	Rhizome	15 g
6	*Vidanga*[34][35]	Fruit	15 g

7	*Saindhava Lavana* [36][37]	Salt	15 g
8	*SauvarchalaLavana* [38]	Salt	15 g
9	*Samudra Lavana* [39]	Salt	30 g
10	*Bida Lavana* [40]	Salt	15 g
11	*Tankana* [41]	*Kshara*	15 g
12	*SvarjikaKshara* [42]	*Kshara*	15 g
13	*Yava Kshara* [43]	*Kshara*	15 g
14	*Vrishchikali* [44]	Whole plant	15 g
15	*Sindura* [45]	Mineral	15 g
16	*Gairika* [46]	Mineral	15 g

Abhava Pratinidhi Dravya

In present reference for *SahacharaGhrita*, *AudhabhidaLavan* is an ingredient but it is not available when any *Lavan* is not available *Saindhavlavan* is used.

Preparation of *SahacharaGhrita*

- Collection of raw material.
- *GhritaMurcchana* carried out according *Bhaishajyaratnavali*.
- **Preparation of *Kwatha***

  For the preparation of the individual *Kwath*, 3 kg of coarse powder of each ingredient, namely *SahacharaPanchanga*, *Dashamoola* and *Shirisha Twak*, was processed separately. Each powdered drug was immersed individually in 24 L of water and kept overnight. The soaked material was subsequently heated on *Manda Agni* until the liquid volume was reduced to approximately

  6 L. The resulting decoction was filtered separately through a cotton cloth to obtain a clear filtrate. The same procedure was followed independently for all three *Kwath*.

  Preparation of *Kalka*

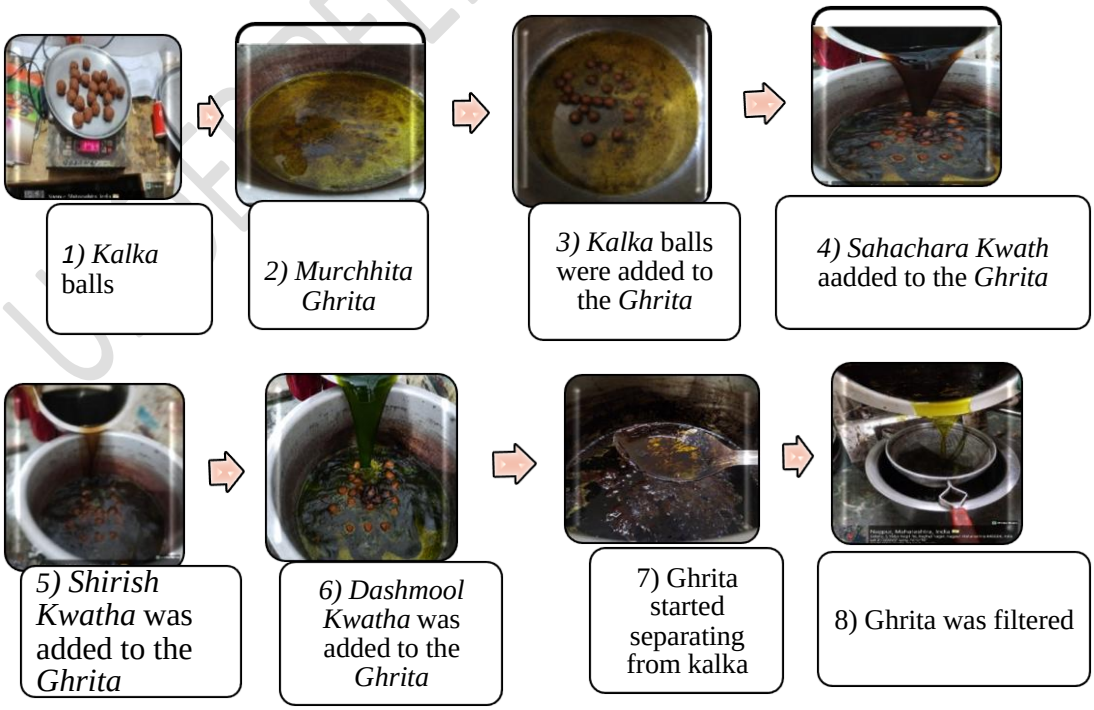
  The prescribed ingredients were cleaned, powdered separately and then blended uniformly. All powders were triturated gradually with potable water until a smooth, homogeneous paste was formed, which was kept ready for the *Sneha Paka* process.

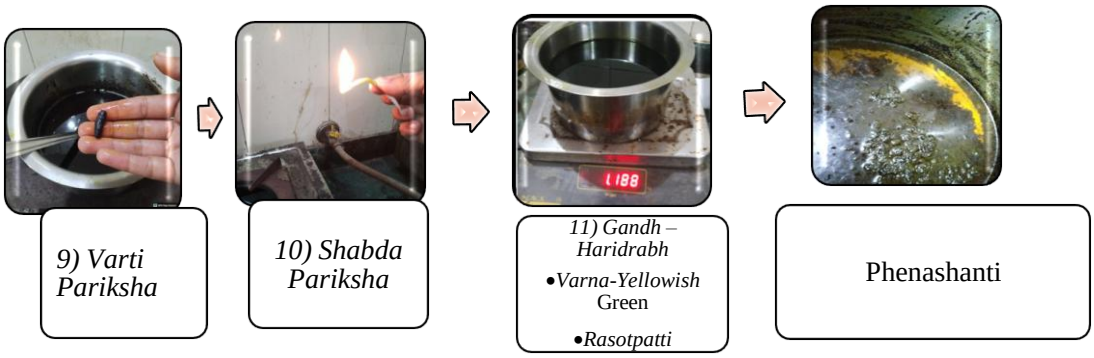
➢ **Preparation of *SahacharaGhrita***

1. **Base:** 965 g of *Murchhita Go-Ghrita* liquefied over *Manda Agni* in a stainless-steel vessel.
2. ***Kalka* addition:**Prepared *Kalka balls* added gradually with continuous stirring.
3. ***Kwatha* addition:***SahacharaPanchanga Kwatha*, *DashamoolaKwatha* and *Shirisha TwakKwatha* added subsequently while stirring.
4. **Heating:** Mixture heated gently over *Manda Agni* with constant stirring.
5. **Observation:** Colour, aroma, frothing and consistency monitored until *Sneha Siddhi Lakshanas* appeared.
6. **Filtration:** Hot *Ghrita* filtered through double-layered cotton cloth.
7. **Storage:** After cooling, transferred into clean, dry stainless-steel containers, labelled and stored for analysis and cream formulation

Table No.2Yield and Percentage Loss of *SahacharaGhrita* during Process

Initial Quantity of *MurchhitaGhrita*	**Final Quantity of *SahacharaGhrita***	**Processing Loss**	**Percentage Loss**
965g	936 g	28 g	3 %





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151 **Pharmaceutical Preparation of Modified Cream Form of *SahacharaGhrita***

152 **Table No.3 Excipients Used in the Preparation of Modified**
153 ***SahacharaGhrita* Cream**

Sr.No	Ingredient	Pharmaceutical Category	Quantity
1	Beeswax	Base and consistency enhancer	**160 g**
2	Liquid Paraffin	Emollient	**500 ml**
3	*SahacharaGhrita*	Medicated *Ghrita* (main ingredient)	**300 ml**
4	Borax	Emulsifying agent	**8 g**
5	Distilled water	Solvent	**100 ml**
6	Methyl Paraben	Preservative	**1 g**

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155 **Preparation of *SahacharaGhrita* Cream**

156 • **Oil phase:** Beeswax was gently melted using a double-boiler method, liquid
157 paraffin added gradually and *SahacharaGhrita* incorporated to form a uniform
158 yellow mixture.

159 • **Aqueous phase:** Borax dissolved in distilled water, producing a slightly turbid
160 solution.

- **Emulsification:** The aqueous phase was added slowly to the oil phase with continuous stirring, leading to thickening and formation of a smooth yellow cream.
- **Filling:** The warm semi-fluid cream was poured into sterile containers.
- **Cooling:** On cooling, the cream attained semi-solid consistency.
- **Final product:** A homogeneous yellow cream with smooth texture was obtained.

Batch	**Initial Quantity**	**Final Cream Obtained**	**Processing Loss**	**% Loss**	**Observation**
Batch I	1069 g	Approx 1055 g	Approx 14 g	Approx. 1.31%	Smooth, homogeneous yellow cream obtained.
Batch II	1069 g	Approx 1054 g	Approx 15 g	Approx 1.40%	Smooth, homogeneous yellow cream obtained.
Batch III	1069 g	Approx 1056 g	Approx 13 g	Approx 1.22%	Smooth, homogeneous yellow cream obtained.

3) PREPARATION OF CREAM

a) PREPARATION OF WATER PHASE

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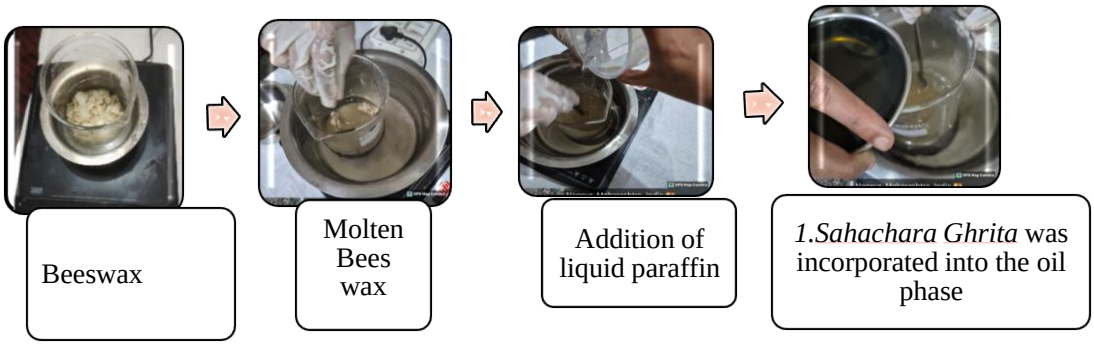
b) PREPARATION OF OIL PHASE



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177 **c) EMULSIFICATION**

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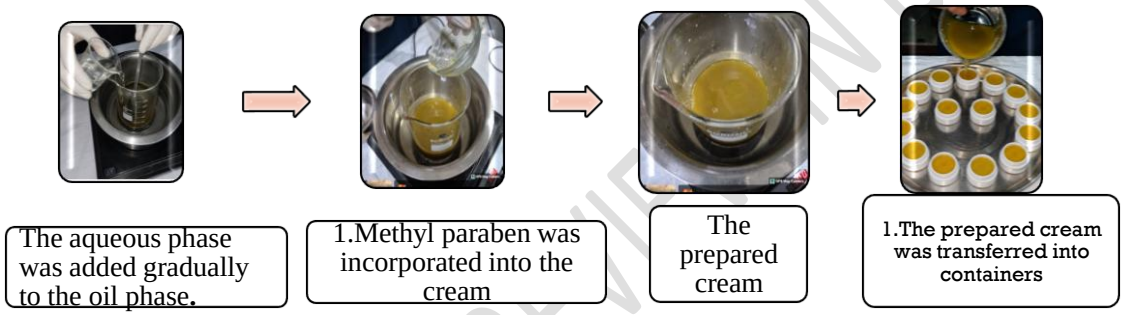

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182 **TableNo5 :Organoleptic Evaluation of Cream**

Sr. No.	Parameter	Observation 183
1	Colour	Greenish yellow colour 184
2	Odour	*Ghrita* and Turmeric Like odour 185
3	Appearance	Homogeneous 186
4	Consistency	Smooth, semi-solid
5	Texture	Soft and slight 187
6	Spreadability	Easily spread on skin.
7	Phase Separation	Absent
8	Grittiness	Absent

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Table No. 6 Analytical Reports of *SahacharaGhrita*

Sr no.	Test	Results
1	REFRACTIVE INDEX AT 40°C	1.4545
2	SPECIFIC GRAVITY AT 40°C	0.9012
4	SAPONIFICATION VALUE	216.2
5	ACID VALUE	0.86
6	IODINE VALUE	39.03
7	PEROXIDE VALUE	3.7
8	pH OF 1% AQUEOUS SOLUTION	5.5
9	RANCIDITY	Absent
10	ORGANOLEPTIC CHARACTER -	
	a) COLOUR	Greenish color
	b) ODOUR	Ghee & Turmeric like odor

TableNo 7Analytical Reports of Modified cream form of *SahacharaGhrita*

Sr. No.	Test	Result
1	Specific gravity at 40°c	0.8593
2	Acid value	0.91 mgKOH/g
3	Rancidity	Absent
4	Spreadability	Easily spread on skin
5	**ORGANOLEPTIC CHARACTER**	
	Colour	Greenish yellow colour
	Odour	Ghee and turmeric like odour
6	Viscosity at 40°c	41.2 cps
7	pH of 1 % aqueous solution	5.12

CLINICAL STUDY

Study Design: Randomized controlled trial.

Sample Size: 60 patients diagnosed with *Mukhadushika* (Acne Vulgaris).

30 patients in each group

Groups:

- **Group A (Trial):** Modified cream form of *SahacharaGhrita*
- **Group B (Control):***Shalmali Kantak Lepa*
- **Duration:** 45 days. (30 Days Intervention And 15 Days Observation)

Selection Criteria

Inclusion Criteria

1) Age group 18-30 years irrespective of gender.
2) Patient having symptom of *Mukhadushika*
   - *Shalmali Kantak* like eruptions.
   - *Saruja Pidaka* (painful acne)
   - *Ghana Pidakas*(hard and thick acne)
   - *MedogarbhaPidakas*(acne filled with oil/sebum/pus)
   - *Shotha* (Inflammation)
3) Patient having symptom of acne vulgaris
   - Open comedones (White head)
   - Close comedones (black heads)
   - Papule
   - Pustule

Exclusion Criteria

1) Patient suffering from any other skin disease and any allergic condition.
2) Patients of severe acne having inflammatory cyst.
3) Patients having hormonal imbalance like PCOD etc.
4) Genetic disorders

Withdrawal Criteria

1. Patient willing to discontinue trial.
2. If patient develop any allergy due to study drug.
3. Inter current illness.

Assessment Parameters:

TableNo8:<u>No. of *Pidakas*</u>

Sr no.	No. of *Pidakas*	Grade
1	NO *Pidakas*	0
2	1-5 *Pidakas*	1

3	5-10 *Pidakas*	2
4	10-15 *Pidaka*	3
5	More than 15 *Pidaka*	4

TableNo9: ***Medogarbha* (containing fat in *Pidaka*):**

Sr no.	***Medogarbha***	Grade
1	No *Pidaka* containing fat inside	0
2	1- 5 *Pidaka* containing fat inside	1
3	5- 10 *Pidaka* containing fat inside	2
4	10- 15 *Pidaka* containing fat inside	3
5	More than 15 *Pidaka* containing fat inside	4

TableNo10:Open comedones (black heads):

Sr no.	**Open comedones (black heads):**	**Grade**
1	No open comedones in area	0
2	1- 5 open comedones in area	1
3	5- 10 open comedones in area	2
4	10- 15 open comedones in area	3
5	More than 15 open comedones in area	4

TableNo.11: Papules

Sr no.	**Papules**	**Grade**
1	No papules in area	0

2	1- 5 papules in area	1
3	5- 10 papules in area	2
4	10- 15 papules in area	3
5	More than 15 papules in area	4

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241 **TableNo.12**: **Pustules**

Sr no.	**Pustules**	**Grade**
1	No Pustules in area	0
3	5- 10 Pustules in area	2
4	10- 15 Pustules in area	3
5	More than Pustules in area	4

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243 **TableNo13: Nodules**

Sr no.	**Nodules**	**Grade**
1	No Nodules in area	0
3	5- 10 Nodules in area	2
4	10- 15 Nodules in area	3
5	More than Nodules in area	4

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245 **TableNo14 :Investigator's Global Assessment (IGA) of acne severity**

0	Clear	Erythema may be present
1	Almost clear	A few scattered comedones and a few small papules
2	Mild	Easily recognizable; less than half the face is involved. Some comedones and some papules and pustules
3	Moderate	More than half the face is involved. Many comedones, papules and pustules. One nodule may be present
4	Severe	Entire face is involved, covered with comedones, numerous papules

		and pustules and few nodules and cysts

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248 **TableNo15: Criteria for assessment:**

Unchanged	0-25% improvement
Mild	26-50% improvement
Moderate	51 to 75% improvement
Marked	76-100% improvement

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250 **Table no. 16:SymptomswisepercentagereliefinGroupAandGroupB (BTAndAT)**

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Symptoms	**Percentage Relief**							
	Group A				**Group B**			
	BT	**AT**	**Relieved**	**%**	**BT**	**AT**	**Relieved**	**%**
Saruja Pidaka	89	13	76	85.39	91	26	65	71.43
Shotha in *Pidaka* (Swelling in *Pidaka*)	92	29	63	68.48	74	36	38	51.35
GhanaPidaka (thikness of the *Pidaka*)	88	24	64	72.73	79	33	46	58.23
Number of *Pidaka*	87	31	56	64.37	84	45	39	46.23
Medogarbha (containing fat in *Pidaka*)	81	37	44	54.32	86	45	41	47.67
Closed comedones	62	8	54	87.10	65	27	38	58.46
Open comedones	70	14	56	80.00	64	19	45	70.31
Papules	83	38	45	54.22	74	30	44	59.46
Pustules	81	37	44	54.32	86	45	41	47.67
Nodules	26	13	13	50.00	31	17	14	45.16
Investigator's Global Assessment (IGA)	67	31	36	53.73	67	31	36	53.73
Mean	65.88				55.45			

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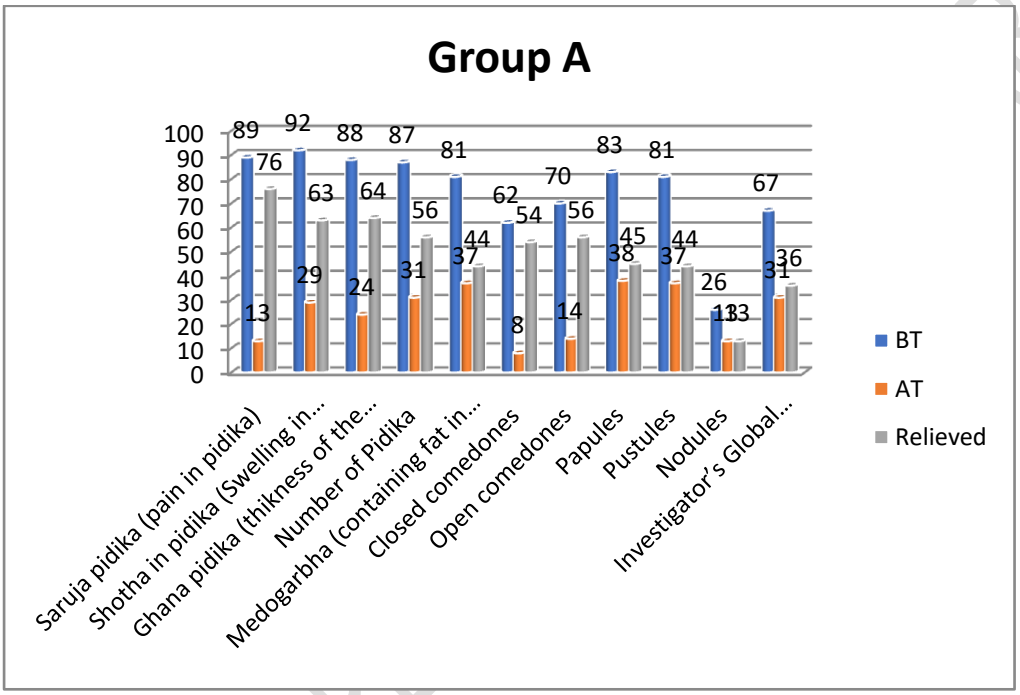
Graph no. 1



Graph no.2

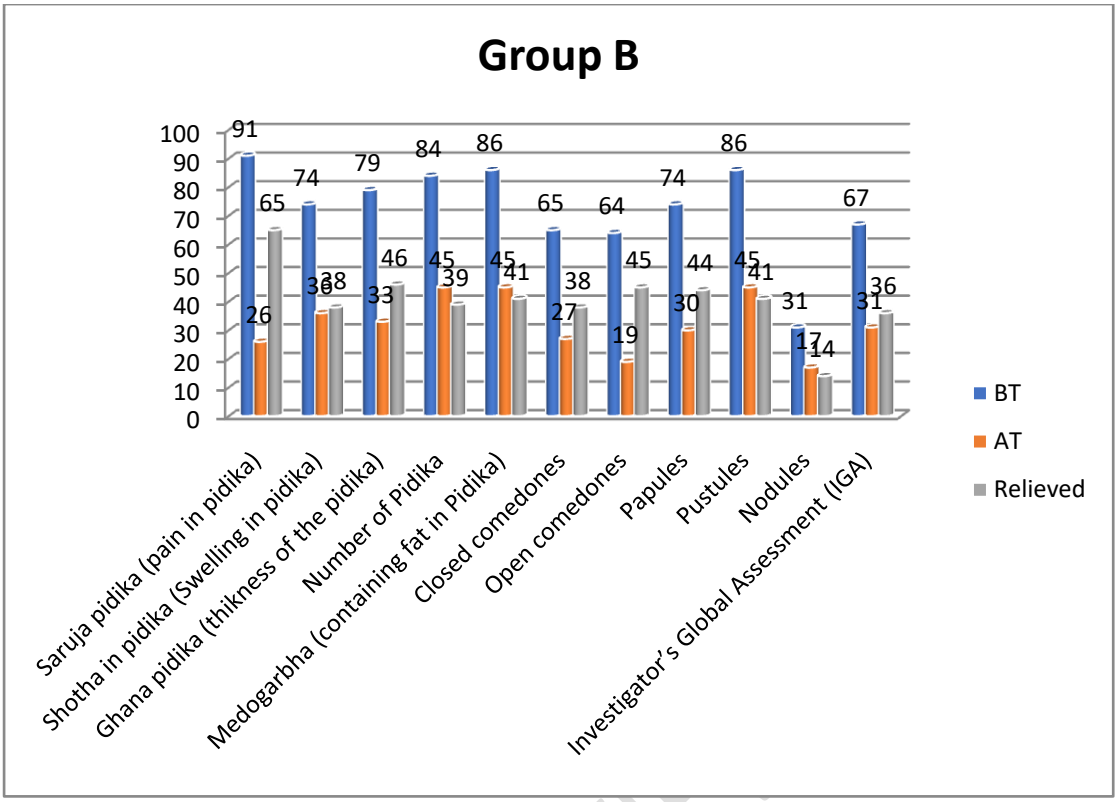


Table no.18Patient-wise Assessment of all clinical parameters Before and After Treatment in Group A and Group B

Group A					Group B				
Sr. No.	BT	AT	Relieved	% Relief	Sr. No.	BT	AT	Relieved	% Relief
1	23	6	17	73.91	1	24	11	13	54.17
2	26	9	17	65.38	2	27	11	16	59.26
3	25	9	16	64.00	3	14	9	5	35.71
4	28	6	22	78.57	4	28	11	17	60.71
5	21	6	15	71.43	5	23	10	13	56.52
6	31	12	19	61.29	6	27	13	14	51.85
7	23	5	18	78.26	7	25	11	14	56.00
8	27	9	18	66.67	8	27	12	15	55.56
9	23	8	15	65.22	9	21	9	12	57.14
10	31	11	20	64.52	10	30	12	18	60.00
11	27	6	21	77.78	11	26	11	15	57.69

12	**26**	**8**	**18**	**69.23**	**12**	**24**	**12**	**12**	**50.00**
13	**26**	**9**	**17**	**65.38**	**13**	**27**	**10**	**17**	**62.96**
14	**29**	**7**	**22**	**75.86**	**14**	**31**	**14**	**17**	**54.84**
15	**29**	**10**	**19**	**65.52**	**15**	**23**	**13**	**10**	**43.48**
16	**26**	**6**	**20**	**76.92**	**16**	**28**	**11**	**17**	**60.71**
17	**28**	**9**	**19**	**67.86**	**17**	**27**	**11**	**16**	**59.26**
18	**28**	**9**	**19**	**67.86**	**18**	**21**	**12**	**9**	**42.86**
19	**24**	**5**	**19**	**79.17**	**19**	**30**	**11**	**19**	**63.33**
20	**21**	**7**	**14**	**66.67**	**20**	**26**	**12**	**14**	**53.85**
21	**29**	**11**	**18**	**62.07**	**21**	**21**	**10**	**11**	**52.38**
22	**24**	**7**	**17**	**70.83**	**22**	**30**	**12**	**18**	**60.00**
23	**24**	**7**	**17**	**70.83**	**23**	**25**	**8**	**17**	**68.00**
24	**27**	**11**	**16**	**59.26**	**24**	**25**	**12**	**13**	**52.00**
25	**26**	**7**	**19**	**73.08**	**25**	**26**	**8**	**18**	**69.23**
26	**28**	**9**	**19**	**67.86**	**26**	**29**	**10**	**19**	**65.52**
27	**28**	**11**	**17**	**60.71**	**27**	**26**	**13**	**13**	**50.00**
28	**27**	**6**	**21**	**77.78**	**28**	**23**	**13**	**10**	**43.48**
29	**29**	**10**	**19**	**65.52**	**29**	**29**	**9**	**20**	**68.97**
30	**25**	**10**	**15**	**60.00**	**30**	**20**	**10**	**10**	**50.00**
Average % relief				**68.98**	**Average % relief**				**55.85**

Table no. 19 – Overall effect of therapy according to subjective criteria on 60 patients of Mukhdushika with special reference to Acne vulgaris

Result	**Group A**		**Group B**	
	Number of patients	**%**	**Number of patients**	**%**
Marked improvement (76 to 100 %)	26	86.67%	0	0.00%
Moderate improvement	4	13.33%	25	83.33%

(51 – 75 %)				
Mild improvement (26 – 50 %)	0	0.00%	5	16.67%
Unchanged (0 to 25 %)	0	0.00%	0	0.00%

In **Group A of Modified cream form of *SahacharaGhrita*** out of 30 patients, marked improvement (76 to 100 % relief) was noted in 26 patients i.e. 66.67 %, Moderate Improvement (51 to 75 % relief) was reported in 4 patients i.e. 13.33 %.

In **Group B of *Shalmali Kantaka Lepa*** out of 30 patients, Moderate Improvement (51 to 75 % relief) was observed in 25 patients i.e. 83.33 % and Mild Improvement (26 to 50 % relief) was noted in 5 patients i.e. 16.67 %.

RESULT

Effect of the Modified cream form of *SahacharaGhrita* (Group A) and *Shalmali Kantaka Lepa* (Group B) on symptoms observed in *Mukhdushika* with special reference to Acne vulgaris is statistically proved to be significant on subjective criteria separately.

The effect of Modified cream form of *SahacharaGhrita* (Group A) is significant than *Shalmali Kantaka Lepa* (Group B) for subjective criteria – *Saruja Pidaka* (pain in *Pidaka*), *Shotha in Pidaka* (Swelling in *Pidaka*), *Ghana Pidaka* (thikness of the *Pidaka*), Number of *Pidaka*, Closed comedones (white heads) and Open comedones (black heads) of *Mukhdushika* with special reference to Acne vulgaris, where level of significance is 95 %.

The effect of Modified cream form of *SahacharaGhrita* (Group A) is not significant than *Shalmali Kantaka Lepa* (Group B) for subjective criteria such as

Medogarbha (containing fat in *Pidaka*), Papules, Pustules, Nodules, Investigator's Global Assessment (IGA) of *Mukhdushika* with special reference to Acne vulgaris, where level of significance is 95 %.

Discussion

Mukhadushika (acne vulgaris) is a condition that, while not life-threatening, deeply affects the confidence and social wellbeing of young individuals. Its rising prevalence and the limitations of conventional therapies—such as long treatment duration, side effects and frequent recurrence—make it an important area for exploring safer, patient-friendly alternatives. Ayurveda describes *Mukhadushika* as a *KshudraRoga* caused by vitiation of *Kapha* and *Vata* dosha with involvement of *Raktadhatu*. Topical therapy, acting directly on the affected site, is emphasized in classical texts, which guided the rationale for this study.

The trial compared Modified *SahacharaGhrita* Cream with *Shalmali Kantaka Lepa*.*Sahachara Ghrita*, a classical formulation from *Bhaishajya Ratnavali*, was reformulated into a cream to overcome the greasy texture and cosmetic limitations of traditional *Ghrita*. This modification retained therapeutic properties while improving spreadability, non-greasy feel and patient acceptability. *Shalmali Kantaka Lepa*, a well-established topical preparation, served as the control.

Pharmaceutical and analytical evaluation confirmed the stability and quality of both formulations. *SahacharaGhrita* showed consistent physicochemical parameters (RI 1.4545, SG 0.9012, SV 216.2, Acid 0.86, Iodine 39.03, Peroxide 3.7, pH 5.5, no rancidity), while the cream demonstrated favourable characteristics (SG 0.8593, Acid 0.91, pH 5.12, good spreadability, viscosity, and cosmetic appeal). These findings validated that the modification enhanced usability without compromising therapeutic integrity.

Clinically, both groups showed significant improvement in acne symptoms. However, Group A (Modified *SahacharaGhrita* Cream) achieved superior outcomes in *Saruja Pidaka*, *Shotha*, *Ghana Pidaka*, Number of *Pidaka* and comedones. Group B (*Shalmali Kantaka Lepa*) showed comparable improvement in papules, pustules, nodules and Investigator's Global Assessment (IGA) score, but overall efficacy was lower. Mean percentage relief was higher in Group A (65.88% subjective, 68.98%

overall) compared to Group B (55.45% and 55.85%). Importantly, patients preferred the cream for its non-greasy texture, smooth consistency and cosmetic appeal, which likely contributed to better compliance and outcomes.

From an Ayurvedic perspective, the therapeutic effect of *SahacharaGhrita* can be attributed to its *Kapha-Vata Shamana*, *Rakta Prasadana*, *Shothahara* and *Lekhana* properties. Modern pharmacological insights further support its anti-inflammatory, antimicrobial, antioxidant and wound-healing activities. The cream dosage form enhanced contact time and uniform application, strengthening its clinical efficacy.

Overall, the study demonstrates that pharmaceutical modification of classical *Ghrita* into a cream form can provide improved patient convenience and cosmetic acceptability without compromising therapeutic potential. The modified *SahacharaGhrita* cream proved to be a standardized, stable and clinically effective topical dosage form for *Mukhadushika*, offering superior outcomes compared to *Shalmali Kantaka Lepa*.

Conclusion

This study showed that converting *SahacharaGhrita* into a cream form made it more patient-friendly without losing its therapeutic strength. Both the cream and *Shalmali Kantaka* Lepa improved acne symptoms, but the cream gave better relief in *Saruja Pidaka*, *Shotha*, *Ghana Pidaka*, Number of *Pidaka***.** Analytical tests confirmed its stability and patients preferred it for its smooth, non-greasy feel and cosmetic appeal.

In essence, the modified *SahacharaGhrita* cream blends classical Ayurvedic wisdom with modern pharmaceutical convenience, making it a promising and effective option for managing *Mukhadushika (acne vulgaris)*.

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