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## Research Article

# Formulation And Evaluation Of Herbal Cream For Management Of Varicose Veins

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## ABSTRACT

Varicose veins, a common vascular condition affecting a significant portion of the population, pose both cosmetic and medical concerns. Traditional treatment options often involve invasive procedures or synthetic medications, which may carry side effects. In this study, we aimed to formulate and evaluate a herbal cream as a non-invasive and potentially safer alternative for managing varicose veins. The herbal cream was developed using a combination of natural ingredients known for their anti-inflammatory, venotonic, and circulatory-enhancing properties including olive oil, manjishtha extract, guggul extract, turmeric extract and aloe vera gel. The formulated cream underwent comprehensive physicochemical characterization, including pH, viscosity, spreadability, and stability studies. Additionally, in vitro assay were conducted to assess the antioxidant and anti-inflammatory activities of the cream. Preliminary results of this cream suggest promising outcomes, with the herbal cream demonstrating significant improvements in symptoms such as pain, swelling, and discoloration. further research is warranted to validate and explore the long-term effects and safety profile of the herbal cream as a potential alternative treatment for varicose veins.

## INTRODUCTION

Varicose veins, characterized by dilated, tortuous veins often visible beneath the skin surface, represent a prevalent vascular condition affecting a substantial portion of the global population. While primarily considered a cosmetic concern, varicose veins can lead to discomfort, pain, and complications such as venous ulcers and

thrombosis, thereby impacting individuals' quality of life. Current treatment options typically involve invasive surgical procedures or the use of synthetic medications, which may be associated with adverse effects and limitations. In recent years, there has been growing interest in exploring natural remedies, particularly herbal formulations, as alternative treatments for various medical

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conditions, including varicose veins. Herbal remedies are often perceived as safer and more sustainable options, owing to their long history of traditional use and perceived lower risk of adverse effects compared to synthetic medications. This study aims to contribute to the growing body of research on herbal treatments for varicose veins by formulating and evaluating a herbal cream specifically designed for this purpose. The chosen herbal ingredients are selected based on their documented pharmacological activities, including anti-inflammatory, venotonic, and circulatory-enhancing properties. By harnessing the potential synergistic effects of these herbal constituents, the formulated cream aims to alleviate symptoms associated with varicose veins and improve overall vascular health. In this paper, we describe the formulation process of the herbal cream, highlighting the selection and characterization of individual herbal ingredients, as well as the optimization of the formulation to ensure stability and efficacy. Furthermore, we present here invitro assays investigating the antioxidant and anti-inflammatory properties of the herbal cream, providing insights in to its potential mechanisms of action. Finally ,we discuss the design and methodology of a clinical trial conducted to evaluate the clinical efficacy of the herbal cream in patients with varicose veins. By employing a randomized, double-blind, placebo- controlled study design, we aim to rigorously assess the effectiveness of the herbal cream in alleviating symptoms and improving quality of life in varicose vein patients. Overall, this study seeks to contribute to the development to safe, effective, and accessible treatment options for varicose veins, while also exploring the potential of herbal medicine in addressing vascular disorders.

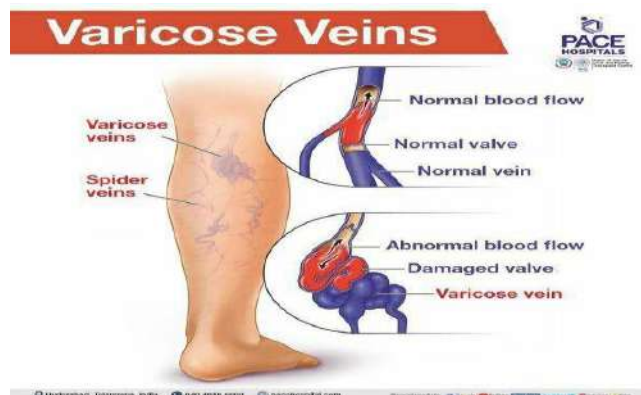
## VARICOSE VEINS

The word varicose comes from the Latin word “Varix”, which means “twisted”. According to WHO the The varicose vein may be defined as,

“vein with a saccular development tortuous” The term “Varicosity” is gene rally employed to elongated, tortuous, pouched, thickened, friable vessels, inelastic which have constantly lost its valvular efficiency through analogous changes may also occur in veins. Chronic Venous Insufficiency of the lower limb is the ailment which involves some indications and symptoms take place because of venous hypertension. The modern system tries to develop the immune mechanism in the blood system by resorting to the antitoxic substances in the blood stream, but with no assurance of permanent cure. Ayurveda advocates, “Let the noxious blood be let out”. It will either cure the disease or else it will make a clear pathway towards further treatment modalities.

The symptoms which show in patients such as:

### • Prominent leg veins



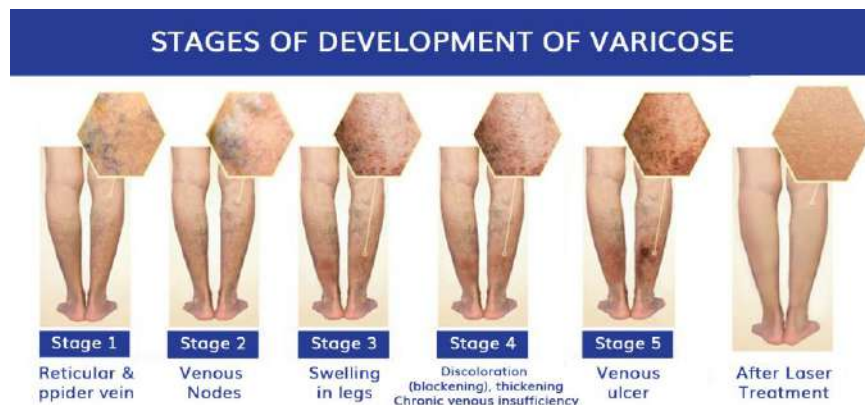
### Muscle cramps

- Discoloration
- Pain
- Itching
- Heaviness
- Venous Ulceration

### Pathogenesis of Varicose Veins:

- The blood flow which is normal takes place from the superficial veins to the deep veins and through the legs up to the heart.
- The superficial veins to deep veins and from legs to heart this both blood flow pathway both contains a single way venous valve.

- The incapability of the systems occurs complications in the blood flow and hence it causes the pathway of blood flow backward, put together blood in and it turns into the venous hypertension.
- Venous hypertension occurs expansion and exaggeration of the veins and this condition of veins produces venous insufficiency results in Varicose Veins.



### Causes:

Weak or damaged valves can lead to varicose veins. Arteries carry blood from the heart to the rest of the body. Veins return blood from the rest of the body to the heart. To return blood to the heart, the veins in the legs must work against gravity. Muscles tighten in the lower legs to act as pumps. Vein walls help blood return to the heart. Tiny valves in the veins open as blood flows toward the heart, then close to stop blood from flowing backward. If these valves are weak or damaged, blood can flow backward and pool in the veins, causing the veins to stretch or twist.

### Risk Factors:

The two main risk factors for varicose veins are:

#### 1. Family history:

If other family members have varicose veins, there's a greater chance you will too.

#### 2. Obesity:

Being overweight puts added pressure on veins.

Other things that might increase the risk of varicose veins include:

#### 1. Age:

Aging causes wear and tear on the valves in the veins that help control blood flow. Over time, that wear causes the valves to allow some blood to flow back into the veins, where it collects.

#### 2. Sex:

Women are more likely to get the condition. Hormones tend to relax vein walls. So changes in hormones before a menstrual period or during pregnancy or menopause might be a factor. Hormone treatments, such as birth control pills, might increase the risk of varicose veins.

#### 3. Pregnancy:

During pregnancy, the blood volume in the body increases. This change supports the growing baby but also can make the veins in the legs bigger.

4. Standing or sitting for long periods of time: Movement helps blood flow.

### Complications:

- Ulcers. Painful ulcers can form on the skin near varicose veins, mostly near the ankles. A discoloured spot on the skin often begins before an ulcer forms. See your healthcare professional right away if you think you have a leg ulcer.
- Blood clots. Sometimes, veins deep within the legs get larger. They might cause leg pain and swelling. Seek medical help for ongoing leg pain or swelling. This can mean a blood clot.
- Bleeding. Rarely, veins close to the skin burst. This mostly causes only minor bleeding. But it needs medical help.

- Leg swelling. Long time varicose veins can cause the legs to swell.

#### **Prevention:**

Getting better blood flow and muscle tone might lower the risk of having varicose veins. The same ways you treat the discomfort from varicose veins can help prevent them. Try the following:

- Don't wear high heels or tight stockings, other than compression stockings.
- Change how you sit or stand often.
- Eat a high-fibre, low-salt diet.
- Exercise.
- Raise your legs when sitting or lying down.
- Keep a healthy weight.

#### **Ayurvedic Treatments:**

Ayurvedic treatments can be highly beneficial in the treatment of varicose veins and can help to reduce the symptoms of varicose veins. Here are some of the benefits of ayurvedic treatment for varicose veins:

- Reducing inflammation and swelling - Ayurvedic treatments help to reduce inflammation and swelling in the veins, which can help to improve blood circulation and reduce the symptoms of varicose veins.
- Strengthening the veins - Ayurvedic treatments help to strengthen the veins, which can help to prevent them from becoming swollen and twisted.
- Reducing stress - Ayurveda is renowned for its ability to reduce stress, and this can be highly beneficial in the treatment of varicose veins. Stress can aggravate the symptoms of varicose veins, so reducing stress levels can help to improve the condition.
- Repairing the damage - Help repair veins that are not functioning properly.
- Detoxify - Purification of the resulting blood through a valve that is not functioning properly.

- Increase metabolism - It can help promote better heart function by reducing cholesterol and helping the opening of blood clots that form due to valve dysfunction.

#### **HERBAL CREAM**

Cream and herbal cosmetics has been an increasing demand for herbal medicine, also called botanical medicine or phytomedicine prepared by using any plant's seeds, berries, roots, leaves, bark, or flowers for medicinal purposes. Long practiced outside of conventional medicine, herbalism is becoming more main stream as up-to-date analysis and research show their value in the treatment and prevention of disease. Recently, the World Health Organization estimated that 80% of people worldwide rely on herbal medicines for some aspect of their primary health care. Plant drugs are frequently considered to be less toxic and freer from side effects than the synthetic ones. Along with other dosage forms, herbal drugs are also formulated in the form of ointment and creams I have developed a very easy method of herbal antiseptic cream Herbal antiseptic cream is a shooting cream enriched with nature it is valuable gift of nature and their demand is increasing in the world market. The herbal antiseptic cream is very effective cream It have no side effect. Antiseptic Cream is a soothing cream enriched with nature's goodness, which accelerates the healing of injured skin. The ingredients in the cream help in healing irritable rashes, sores, eruptions, prickly heat, and mild skin infection

#### **Classification Of Cream:**

1. According to function e.g. cleansing, foundation, massage, etc.
2. According to characteristics properties, e.g. cold creams, vanishing creams, etc.
3. According to the nature or type of emulsion
  - 3.1. Make-up cream (o/w emulsion) :a) Vanishing creams. b) Foundation creams.



3.2. Cleansing cream, Cleansing milk, Cleansing lotion(w/o emulsion)

3.3. Winter cream(w/o emulsion):a)Cold cream or moisturizing creams.

4. All-purpose cream and general creams.

5. Night cream and massage creams.

6. Skin protective cream.

7. Hand and body creams.

#### **Key Features of Herbal Cream:**

1. Herbal creams typically boast natural ingredients like plant extracts, essential oils, and vitamins.
2. They're favored for their gentle, nourishing properties, often used for skincare, soothing irritations, and promoting healing.
3. Common features include hydration, anti-inflammatory effects, and antioxidants, catering to various skin types and concerns.

#### **Advantages of Herbal Cream:**

##### **1. Natural Ingredients:**

Herbal creams typically contain natural ingredients derived from plants, herbs, and botanical extracts, which can be beneficial for the skin and may have fewer adverse effects compared to synthetic alternatives.

##### **2. Gentle on the Skin:**

Many herbal creams are formulated to be gentle on the skin, making them suitable for individuals with sensitive skin or those prone to allergies or irritation.

##### **3. Minimal Chemicals:**

Herbal creams often have fewer synthetic chemicals, preservatives, and artificial fragrances compared to conventional skincare products, reducing the risk of adverse reactions or long-term skin damage.

##### **4. Potential Therapeutic Benefits:**

Certain herbs used in herbal creams may possess therapeutic properties such as anti-inflammatory, antimicrobial, antioxidant, or soothing effects, which can help improve various skin conditions or promote overall skin health.

##### **5. Customizable Formulations:**

Herbal creams can be customized to target specific skin concerns or conditions by selecting herbs and botanicals known for their beneficial properties, allowing for personalized skincare solutions.

##### **6. Environmental Sustainability:**

Many herbal creams are produced using sustainable and eco-friendly practices, including responsibly sourced ingredients and packaging, making them a more environmentally conscious choice.

##### **7. Holistic Approach:**

Herbal creams often embrace a holistic approach to skincare, considering not only the skin's surface but also its overall health and well-being, aligning with natural and holistic lifestyles.

#### **PLANT PROFILE**

##### **1. Guggulu:**

##### **Synonyms –**

Guggal, Mahaishsguggul, Gum Guggulu, Indian bdellium.

##### **Biological source –**

Guggulu (oleo gum resin) exudes out from the bark of Commiphora whightti plant.

##### **Family –**

Burseraceae.

##### **Chemical constituents –**

- E-guggulsterone
  - Z-guggulsterone
  - Guggusterols
  - Octadecane-1,2,3,4-terol
  - Nanodecan-1,2,3,4-terol
  - Eicosan-1,2,3,4-terol
  - Sesamin
  - Diayangambin
- Guggulu (oleo gum resin)

##### **Uses –**

- Anti-inflammatory
- Promote weight loss
- Treat hypothyroidism



- Treat cystic fibrosis
- Relieves ulcers



## 2. Manjishtha:

### Synonyms –

Manjitha, Chitravalli.

### Biological source –

It is a flowering plant obtained from the rubia cordifolia.

### Family –

Rubiaceae

### Chemical constituents–

- Munjistin
- Xanthopurpurin
- Rubiadin
- Mangistin
- 1-hydroxy 2-methoxy anthraquinone



Manjishtha plant

### Uses –

- Blood purifying
- Relieves inflammation
- Relieves diseases of skin
- Wound healing
- Relieves pain

## 3. Turmeric :

### Synonyms –

Haldi, Manjal, Haridra.

### Biological Source –

A rhizomatous herbaceous perennial plant obtained from curcuma longa.

### Family –

Zingiberaceae

### Chemical constituents –

- Curcuminoids
- Dihydrocurcumin
- Demethoxycurcumin
- Bisdemethoxycurcumin
- Curcumenone
- Dehydrocurdione
- Arturmerone
- Curcumadiol

### Uses –

- Anti-inflammatory
- Anti-bacterial
- Antioxidant
- Anti-spasmodic
- Anti-HIV
- Treats skin diseases
- Wound healing



Turmeric plant

## 4. Olive oil :

### Synonyms –

Olea europaea, liquid gold

### Biological source –

It is obtained from the fruit of the olive tree scientifically known as olea europaea.

### Family –

Oleacea



### Chemical constituents –

- Linoleic acid
- Palmitic acid
- Tocopherols(vitamin E)
- Betacarotene
- Lutein
- Oleocanthal

### Uses –

- Antioxidants
- Anti-inflammatory
- Skin health



Olive oil

### 5. Aloe vera :

Synonyms – Ghrit kumari, Korpadi

Biological source – The dried juice collected by incision, from the bases of the leaves of various species of aloe including aloe barbadensis mil.

Family –

Liliaceae.

### Chemical constituents –

- Anthracene glycosides
- Barbaloin or aloin
- Isobarbaloin
- Aloinosides A & B
- Aloe-emodin
- Aloesone

### Uses–

- Anti-inflammatory
- Soothe sunburn
- Moisturize the skin
- Antioxidant
- Antifungal
- Antiseptic properties

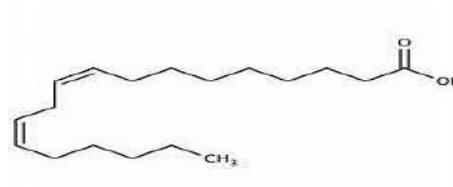


Aloe Vera

### DRUG PROFILE

#### 1. E & Z Guggulsterone

#### Chemical Structure:



#### Molecular Formula:

C<sub>21</sub>H<sub>28</sub>O<sub>2</sub>

#### Description:

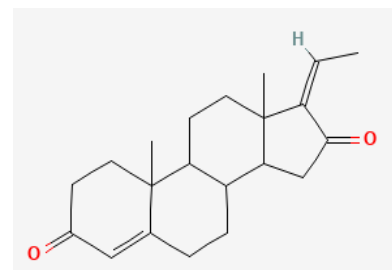
Guggulsterone E & Z is a natural product found in Commiphora mukul and Commiphora whightti with data available.

#### Biological Activity:

Anticholesterol, antidiabetic, anticancer and anti-inflammatory activities.

#### 2. Curcumin

#### Chemical structure:



#### Molecular Formula:

1,7-bis-(4-hydroxy-3-methoxyphenyl)-hepta-1,6-diene-3,5-dione

#### Description :

The main ingredient of the Curcuma longa is the rhizome, a low-molecular-weight lipophilic molecule that can pass through the cellular

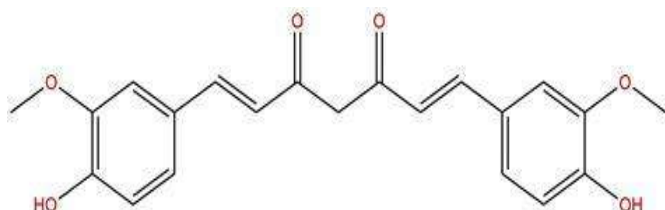
membrane easily. By its chemical structure, it belongs to the group of polyphenols.

#### **Biological activity :**

Anti-inflammatory, hypoglycemic, antioxidant, antimicrobial, antiviral, anticancer, neuroprotective.

### **3. Linoleic Acid**

#### **Chemical Structure:**



#### **Molecular Formula:**

C<sub>18</sub>H<sub>30</sub>O<sub>2</sub>

#### **Description :**

Alpha-Linoleic acid (ALA) is a polyunsaturated omega-3 fatty acid. It is a component of many common vegetable oils and is important to human nutrition.

#### **Biological activity:**

Anti-inflammatory, acne reductive, skin-lightening and moisture retentive properties.

### **MATERIAL & METHOD**

#### **A. EXTRACTION**

##### **1. Aloe Vera Gel :-**

Mature, healthy and fresh aloe Vera leaves were collected and washed with distilled water. Then after proper drying of leaves in hot air oven, the outer part of the leaf was dissected longitudinally using a knife. Then aloe Vera gel that is the colourless parenchymatous tissue was removed using the knife. Then it is filtered by using muslin cloth to remove the fibres and impurities. Then the filtrate or the filter product which is a clear aloe Vera gel was used in the preparation.

##### **2. Extraction of Guggulu :**

100 gm air-dried resins were extracted with 500 ml of ethyl acetate for 5 days. The extract was filtered by using Whatman filter paper. The filtrate was collected and solvent was evaporated under reduced pressure using vacuum evaporator.



**Soxhlet extraction of guggulu**

##### **3. Extraction of Manjishtha :**

5 gm sample was taken in a dry conical flask. 200 ml solvent was added to it and was shaken for some time. The sample was kept overnight. Next day, it was filtered and 20 ml filtrate was taken in evaporating dish, solvent was evaporated by heating on a water bath, dried in an oven till constant weight, cooled and weighed.



**Maceration of manjishtha**

##### **4. Extraction of Turmeric :**

About 15 g of finely ground turmeric powder was dissolved in 100 ml of 70% alcohol. The preparation was left undisturbed for 48 hours. The filtrate obtained was used to prepare formulation.





## B. PHYTOCHEMICAL TEST

### 1. Test for steroid :



TEST	PROCEDURE	OBSERVATION	INFERENCE
Salkowski test	Guggul Extract + Chloroform + Conc. H <sub>2</sub> SO <sub>4</sub>	Reddish Brown Colour	Presence of Steroid

### 2. Test for polyphenol :

TEST	OBSERVATION	INFERENCE
1. Extract + Sulphuric acid	Crimson Colour	Curcumin is Present
2. Extract + Boric acid	Reddish brown Colour	Curcumin is Present
3. Extract + 1ml Hydrochloric acid	Pink Colour	Curcumin is present
4. Extract + Ferric chloride	Green Colour	Curcumin is present



### Phytochemical test

## C. FORMULATION OF HERBAL CREAM

### 1. Materials:

#### a. Apparatus:

Beaker, stirrer, dropper

#### b. Chemicals:

### Formulation table:

Sr no.	Ingredients	F1	F2	F3
1.	Guggulu extract	1.5ml	2.5ml	2.5ml
2.	Manjishtha extract	1ml	1.2ml	2.5ml
3.	Turmeric extract	0.5ml	1.5ml	1.5ml
4.	Olive oil	10ml	15ml	13ml
5.	Aloe Vera gel	1.5ml	2.5ml	2.5ml
6.	Beeswax	3gm	3.5gm	4gm
7.	Borax	0.2g	0.2gm	0.3gm
8.	Methyl parabean	0.02gm	0.04gm	0.06gm
9.	Peppermint oil	0.08ml	0.06ml	0.04ml
10.	Distilled water	2.2ml	3.5ml	3.6ml

Aloe Vera gel, beeswax, Manjishtha extract, turmeric extract, guggul extract, olive oil, methyl parabean, borax, distilled water

#### c. Instruments:

Heating mantle, pH meter, Weighing balance

### Method:

- Heat liquid paraffin and beeswax in a borosilicate glass beaker at 75 °C and maintain that heating temperature (Oil phase).
- In another beaker, dissolve borax, methyl parabean in distilled water and heat this beaker to 75 °C to dissolve borax and methyl parabean and to get a clear solution. (Aqueous phase).
- Then slowly add this aqueous phase to heated oily phase.
- Then add a measured amount of aloe Vera gel, Guggul extract, Manjishtha extract and Turmeric extract and stir vigorously until it forms a smooth cream.
- Then add few drops of peppermint oil as a fragrance.



**Figure10: Herbal cream**

## EVALUATION TESTS

### 1. Physical evaluation:

In this test, the cream was observed for colour, odour, texture, stat.

### 2. Wash ability:

A small amount of cream was applied on the hand and it is then washed with tap water.

### 3. pH:

0.5 g cream was taken and dispersed in 50 ml distilled water and then PH was measured by using digital PH meter.

### 4. Phase separation:

Prepared cream was kept in a closed container at a temperature of 25-100 °C away from light. Then phase separation was checked for 24 h for 30 d. Any change in the phase separation was observed / checked.

### 5. Irritancy:

Mark the area (1 cm<sup>2</sup>) on the left-hand dorsal surface. Then the cream was applied to that area and the time was noted. Then it is checked for irritancy for an interval up to 24 h and reported.

### 6. Greasiness:

Here the cream was applied on the skin surface in the form of smear and checked if the smear was oily or grease-like .

### 7. Homogeneity-

A good cream formulation should be homogeneous in nature. It implies proper mixing and compatibility of the constituents. We checked the homogeneity of our cream by visual appearance and by touch. The cream was homogeneous and smooth to touch.

### 8. Spreadability:

The spreadability was expressed in terms of time in seconds taken by two slides to slip off from the cream, placed in between the slides, under certain load. Lesser the time taken for separation of the two slides better the spreadability. Two sets of glass slides of standard dimension were taken. Then one slide of suitable dimension was taken and the cream formulation was placed on that slide. Then other slide was placed on the top of the formulation. Then a weight or certain load was placed on the upper slide so that the cream between the two slides was pressed uniformly to form a thin layer. Then the weight was removed and excess of formulation adhering to the slides was scrapped off. The upper slide was allowed to slip off freely by the force of weight tied to it. The time taken by the upper slide to slip off was noted. (table 9)

$$\text{Spread ability} = m \times l/t$$

Where,

m= Standard weight which is tied to or placed over the upper slide

(30g)

l= length of a glass slide (5 cm)

t= time taken in seconds.

## RESULT:

### Test for steroid

TEST	PROCEDURE	OBSERVATION	INFERENCE
Salkowski test	Guggul Extract + Chloroform + Conc. H <sub>2</sub> SO <sub>4</sub>	Reddish Brown Colour	Presence of Steroid

**Test for polyphenol :**

TEST	OBSERVATION	INFERENCE
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3. Extract + 1ml Hydrochloric acid	Pink Colour	Curcumin is present
4. Extract + Ferric chloride	Green Colour	Curcumin is present

**Evaluation test of cream :**

Sr. No.	Evaluation parameter	Result		
		F1	F2	F3
1.	<b>Physical evaluation</b> a. Colour b. Oduor c. Texture d. State	<ul style="list-style-type: none"> <li>Faint yellow</li> <li>Mild herbal</li> <li>Smooth</li> <li>Semi-solid</li> </ul>	<ul style="list-style-type: none"> <li>Faint yellow</li> <li>Mild herbal</li> <li>Smooth</li> <li>Semi-solid</li> </ul>	<ul style="list-style-type: none"> <li>Faint yellow</li> <li>Mild herbal</li> <li>Smooth</li> <li>Semi-solid</li> </ul>
2	<b>Irritancy</b>	No adverse effect observed	No adverse effect observed	No adverse effect observed
3	<b>Wash-ability</b>	Easily washable	Easily washable	Easily washable
4	<b>pH</b>	6.52	6.23	6.91
5	<b>Spread-ability (g x cm/sec)</b>	22.8	23.9	21.6
6	<b>Phase separation</b>	No phase separation	No phase separation	No phase separation
7	<b>Greasiness</b>	Non greasy	Non greasy	Non greasy
8	<b>Homogeneity</b>	Uniform distribution of extract	Uniform distribution of extract	Uniform distribution of extract

**DISCUSSION:**

The formulation and evaluation of a herbal cream for the management of varicose veins utilizing ingredients such as guggul, Manjishta, turmeric, olive oil, and aloe vera gel offer promising potential due to their known therapeutic properties. Guggul, known for its anti-inflammatory and analgesic properties, could help alleviate the pain and inflammation associated with varicose veins. Manjishta, a herb traditionally used in Ayurvedic medicine for its blood purifying and anti-inflammatory effects, may aid in improving blood circulation and reducing swelling. Turmeric, with its potent anti-inflammatory and antioxidant properties, could further contribute to reducing inflammation and preventing oxidative damage to the blood vessels.

Olive oil's moisturizing and emollient properties could provide a soothing effect on the skin, potentially relieving discomfort and dryness often experienced with varicose veins. Aloe vera gel, renowned for its cooling and healing properties, may help soothe irritated skin and promote tissue repair. In terms of evaluation, various parameters need to be considered such as stability, pH, viscosity, spreadability, skin irritation potential, and efficacy in relieving symptoms associated with varicose veins. Clinical trials would be necessary to assess the cream's effectiveness in reducing pain, swelling, and improving overall vascular health.

**SUMMARY:**

The herbal cream formulated for managing varicose veins contains guggul, Manjishta,



turmeric, olive oil, and aloe vera gel. These ingredients are chosen for their potential to alleviate symptoms associated with varicose veins, such as inflammation and poor circulation. Guggul is known for its anti-inflammatory properties, Manjishta helps improve blood circulation, turmeric offers antioxidant benefits, olive oil nourishes the skin, and aloe vera gel soothes and moisturizes. The cream is designed to be applied topically to affected areas. Its efficacy can be evaluated through clinical trials assessing its ability to reduce swelling, pain, and improve the appearance of varicose veins over time.

### **CONCLUSION:**

In conclusion, the formulation and evaluation of a herbal cream for managing varicose veins utilizing olive oil, guggul, manjishtha, turmeric, and aloe vera present a promising avenue for natural and effective treatment. By combining the moisturizing properties of olive oil with the anti-inflammatory and antioxidant benefits of guggul, manjishtha, turmeric, and aloe vera, the cream offers a holistic approach to alleviating symptoms associated with varicose veins, such as pain, swelling, and discomfort. Through rigorous evaluation encompassing physical properties, stability, safety, efficacy, user feedback, and regulatory compliance, the cream can be fine-tuned to ensure both safety and efficacy. This process may involve adjustments to ingredient ratios, incorporation of additional active ingredients, or optimization of formulation techniques. Ultimately, the development of a herbal cream for varicose vein management holds the potential to provide individuals with a natural and accessible solution to improve their vascular health and overall well-being. Further research and clinical studies will be valuable in validating its effectiveness and broadening its accessibility to those in need.

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