SKM VAIDHYA AMIRTHAM

News Letter of SKM in Siddha, Ayurveda and Unani

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"Quotes of quarter"

"व्यायामात्लभतेस्वास्थ्यंदीर्घायुष्यंबलंसुखं।
आरोग्यंपरमंभाग्यंस्वास्थ्यंसर्वार्थसाधनम्॥"

VyāyāmātLabhateSvāsthyaṁDīrghāyuṣyaṁBalaṁSukhaṁ.
ĀrogyaṁParamaṁBhāgyāṁSvāsthyaṁSarvārthasādhanaṁ.

"Exercise brings health, longevity, strength and happiness. Being healthy is the ultimate destiny and with health all other works are accomplished."

Articles are invited in SIddha, Ayurveda and Unani fields about clinical experience, rare medicinal preparations, successful treatments, Herbal informations and AYUSH Foods for our "SKM Vaidhya Amirtham" News letter which has around 10000 copies of circulation.

Please send your Articles/Suggestions to:
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Saminathapuram (Post), Modakkurichi,
Erode - 638 104. Tamilnadu, India.
email:techsupport@skmsiddha.org

Antifungal activity of Polyherbal Siddha formulation Seemai Agathi Ointment (Fungiwin)

INTRODUCTION

Skin is the most sensitive organ in the human body. Infection of the skin is caused by various pathogens such as bacteria, fungi and virus. Among the pathogens, fungi are the most causative organisms causing skin infections. Fungal infections represent an important paradigm in immunology, as they can result from either a lack of recognition by the immune system or over activation of the inflammatory response. An antifungal agent is a drug that selectively eliminates fungal pathogens from a host with minimal toxicity to the host. Examples of antifungal agents include Amphotericin, nystatin, pimaricin, Fluconazole, Itraconazole and ketoconazole. Fluconazole is now routinely used to treat candidemia in non-neutropenic hosts, and is gaining acceptance for use in cryptococcosis and selected forms of coccidioidomycosis. However, plant based medicines are of interest in this context because they comprise safer or more effective substitutes for synthetically produced antimicrobial agents.

SeemaiAgathi also called as Vandukolli is the best medicinal plant against bacteria, fungi, virus and parasite. The botanical name of SeemaiAgathi is Cassia alata which belongs to the family Caesalpiniaceae. This medicinal plant has got several uses including skin infections caused by bacteria, fungi etc. The ointment which was prepared by grinding the leaves with coconut oil or gingelly oil was applied externally over the affected areas and it is very good remedy against skin infection mainly fungal infections.

MATERIALS AND METHODS

MATERIALS

Collection of drug and test organisms

SeemaiAgathi ointment is manufactured by SKM Siddha and Ayurveda Company (India) Limited, Erode, Tamil Nadu. The product isobtained from the SKM Siddha and Ayurveda Company (India) Ltd, Erode (Batch No: OAA13008 Mfg Date: August 2013, Batch No: OAA13011, OAA13012 Mfg date: October 2013). The test organisms (fungal pathogens) such as Candida albicans (MTCC 183), Aspergillus niger (MTCC 281), Aspergillus fumigatus (MTCC 8877), Cryptococcus laurentii (MTCC 3954), Microsporumgypseum (MTCC 4524) and Fusariumoxysporum (MTCC 7677) were purchased from MTCC, Chandigarh, India.

Media requirements

Sabauroud's Dextrose agar, Nutrient medium, well maker, DMSO, micropipette, Conical flasks, petri dishes, test tubes, beakers, sterilized tips, Bunsen burner, loop, etc.,

METHODS

Culturing of organisms

The medium Sabauroud's dextrose agar and nutrient broth were prepared and sterilized at 121˚C for 20 minutes using the autoclave. The glass wares used in this study were also sterilized before use. The fungal pathogens Candida albicans (MTCC 183), Aspergillus niger (MTCC 281), Aspergillus fumigatus (MTCC 8877), Cryptococcus laurentii (MTCC 3954), Microsporumgypseum (MTCC 4524), Fusariumoxysporum (MTCC 7677) were subcultured in the nutrient medium.

Extraction of drugs

The topical ointment was dissolved in water and prepares a stock solution of 10 mg/ml and different concentrations of the ointment were prepared by serial dilution technique. The concentrations of SeemaiAgathi were 250µg/ml, 500µg/ml, 750µg/ml and 1000µg/ml.

Screening for antifungal activity

The sterilized Sabauroud's Dextrose agar was poured into the petri plates aseptically and allowed to solidify at room temperature. The antibacterial agent Tetracycline (500mg) was added to the agar medium and mixed well before pouring to the petri plates. The antifungal activity was done by agar well diffusion method as follows. Once the medium had solidified, four wells, each 5 mm in diameter, were cut out of the agar and each fungal pathogen Candida albicans (MTCC183), Aspergillus niger (MTCC 281), Aspergillus fumigatus (MTCC 8877), Cryptococcus laurentii (MTCC 3954), Microsporumgypseum (MTCC 4524) and Fusariumoxysporum (MTCC 7677) was swabbed into each plate.

50 µl of the SeemaiAgathi were placed into each well at different concentrations (250µg/ml, 500µg/ml, 750µg/ml and 1000µg/ml). Fluconazole (FLC) (standard antifungal agent) was used as a positive control. The plates were kept in incubator to observe the zone of inhibition. The zone of inhibition was measured from the agar well to the end of the zone (mm). The minimal inhibitory concentration of the ointment was also determined [5-8]. Triplicates were maintained.

RESULTS AND DISCUSSION

The dose dependent antifungal activity of SeemaiAgathi ointment was observed. The broad spectral antifungal activity was observed for all the fungal pathogens. The results were shown in the tables 2 and 3. The minimum inhibitory concentration was observed as 20 µg/ml against Aspergillus fumigatus. The important medicinal plant in this formulation is found to be Cassia alata.

CONCLUSION

In summary, the polyherbal Siddha formulation-SeemaiAgathi ointment shows significant activity against the clinically important fungal strains. The results were compared with standard antifungal drug. Many investigations are being carried out throughout the world to discover plant products to inhibit the clinically important fungal pathogens. The World Health Organization (WHO) estimates that plant extracts or their active constituents are used as folk medicine in traditional therapies of 80% of the world's population. Hence, plant based medicines that inhibit their growth without harming the host represent potential therapeutic agent. Each and every country has their own indigenous system of medicine and many of the formulations were not validated for their purported claims and it is the need of the hour to scientifically prove the claimed effects to spread those systems to gain acceptance at the global level..

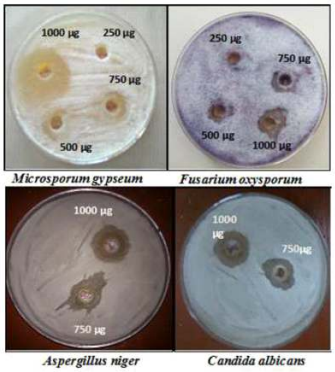


Figure - 1: Antifungal activity of Seemai Agathi ointment.

Table - 2: Antifungal activity of Seemai Agathi ointment

Name of the fungal pathogens	Seemai Agathi Diameter of zone of inhibition (mm)			
	Concentration (µg/mL)			
	250	500	750	1000
Aspergillus niger	16	22	23	25
Aspergillus fumigatus	14	21	22	23
Cryptococcus laurentii	8	12	14	17
Candida albicans	14	16	18	21
Fusarium oxysporum	6	8	11	14
Microsporum gypseum	9	12	14	16
Fluconazole (500 µg/ml)	18	22	23	26

Table - 3: Minimal inhibitory concentration of Seemai Agathi ointment

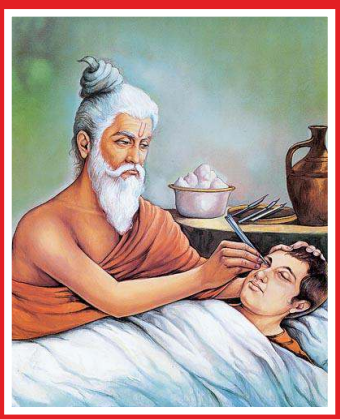
Name of the fungal pathogens	Seemai Agathi (MIC*) in µg/mL
Candida albicans	25
Aspergillus niger	25
Aspergillus fumigatus	20
Cryptococcus laurentii	75
Microsporum gypseum	75
Fusarium oxysporum	75

Reference:

1 Ganesh T, 2Ramasamy MS and 2 ChitraJayaram.*

1 R&D Division, SKM Siddha and Ayurveda Company (India) Ltd, Erode, Tamil Nadu, India.

2 AU-KBC Research centre, ISM & Natural products laboratory, MIT Campus, Anna University, Chennai, Tamil Nadu, India.



सम दोष समाग्निश्च सम धातु मल क्रियाः |
प्रसन्न आत्मेन्द्रिय मन स्वस्थ इत्यभिधीयते ||

The doshas must be in equlibrium (Samdosa), balance digestive enzymes and metabolites (samangi) and the dhatus (tissues) and malas (wasted) must work in a normal and balanced way. The sensory and motor organs, mind, atma (Prasannatmendriya manah) must be also in a pleasant state. Such a person is called a healthy person or Swastha.

(Sushruta)

Anti Gastric Ulcer Activity of Triphala Karpam

INTRODUCTION

Peptic ulcer is worldwide problem and its prevalence is quite high in India. Several field studies from different parts of our country suggest its occurrence in 3 to 10 per thousand populations. The exact cause of peptic ulcer is not known, the disease results in chronic suffering, loss of working hours and occasional fatality. Smoking, alcoholism and spices add to the severity of the disease that often precipitate serious complication of ulcer. Indigenous drugs possessing fewer side effects should be looked for as a better alternative for the treatment of peptic ulcer. There is evidence concerning the participation of reactive oxygen species in etiology and pathophysiology of human disease, such as neurodegenerative disorders such as gastro inflammation and gastric ulcer.

Herbal medicine is fast emerging as an alternative treatment to available synthetic drugs for treatment of ulcer possibly due to lower costs, availability, fewer adverse effects and perceived effectiveness. Triphalakarpam is a proprietary Siddha medicine with eight ingredients and indicated for peptic ulcer. it is one of the fast moving products as per the Market survey conducted by the co-author in Chennai. Every ingredient in this formulation possesses anti-ulcer property which is the rationale to check out the Synergistic activity of the Drug. All the Ingredients are astringents which will help in combating peptic ulcer. In the present study an attempt has been made to validate the antiulcer activity of Triphalakarpam (TK) Siddha formulation.

MATERIALS AND METHODS

Animals

Wistar Albino rats (150-200mg) of either sex were used in this investigation. They were maintained at standard housing condition and fed with commercial diet (Hindustan lever ltd., Bangalore) and provided with water ad libitum during the experiments. The Institutional Animal Ethical Committee permitted the study (No: 92/PHARMA/SCRI, 2011).

Anti-ulcer activity

Pyloric ligation model (8-15) The albino rats of either sex weighing between 150-200g were divided into 5 groups of 6animals. The animals were deprived of food for 24 hours, before the commencement of experiments, but water allowed at ad libitum. After the fasting period the rats were anaesthetized with light ether. The abdomen was opened and the pyloric end was ligated with a thread . All the samples were given 60 minutes prior to pyloric ligation.

Group-I received distilled water (1ml/kg, p.o) act as a control, Group-II received Ranitidine (30 mg/kg, p.o.) act as a standard and Group-III and IV received Triphalakarpam (100&200 mg/kg, p.o) After 4 hours of pyloric ligation all the animals were sacrificed to observe gastric lesions. The gastric juice was collected and centrifuged at 1000 rpm for 10 minutes. The volume of gastric juice (ml) as well as pH of gastric juice was noted. Then the gastric juice was subjected to biochemical estimation . The gastric ulcer score was recorded according to the method described by Aguwa and Ukwe (1997). Gastric content were assayed for total acidity by titration against 0.01N NaOH using phenolphthalein as indicator. The volume of gastric content was measured and the total acidity and free acidity were estimated. The data concerning the pH, acid secretion were analysed by One-Way analysis of variance (ANOVA) and followed by student't' test were show in Table 1.

Aspirin induced gastric ulcer

In the aspirin induced ulcer experiments, five groups of albino rats with each group consisting of six animals were used. The first group served as a control group, the second group served as standard and the third and fourth groups were treated respectively with Triphalakarpam (100mg/ 200mg), orally for 8 days. Control animals received normal saline (2ml/kg) for 8 days. After 8 days of treatment .animals were fasted for 24 hrs. ulcer was produced by administration of aqueous suspension of aspirin (a dose of 200 mg/kg orally) on the day of sacrifice .The animals were sacrificed 4h later and stomach was opened to calculate the ulcer index by kunchandy method Table 2 .

RESULTS

Acute toxicity studies of the various extracts of the Triphalakarpam Siddha formulation did not exhibit any signs of toxicity up to 2g/kg body weight. Since there was no mortality of the animals found at high dose. Hence 100 and 200 mg/kg dose of the Triphalakarpam selected for evaluations of anti-ulcer activity.

Pylorus ligation induced ulcer The results of oral administration of the Triphalakarpam at 100 and 200 mg/kg b.w on different chemical parameters in rats were represented in Table 1. Triphalakarpam a Siddha formulation in different doses produced a reduction in the ulcer index, gastric volume, free acidity, total acidity and raised gastric pH significantly in comparison with control group.

Ranitidine standard drug produced significant reduction gastric ulcer and total acid output as compared to control group. But Triphalakarpam 200mg/kg showed almost similar effects as that of ranitidine (30mg/kg) in reducing the gastric volume.

Compared to control group the entire test showed elevation in pH indicating their capacity to reduce the acidity of the gastric juice. The Triphalakarpam at 200mg/kg indicated almost equipotent effect as that of ranitidine. Gastric free acidity is increased in control animals due to pylorus ligation. Triphalakarpam at 200mg/kg decreased the gastric free acidity respectively. When compared to ranitidine effect, Triphalakarpam showed significant effect in reducing the gastric free acidity.

Total acidity showed decrease in various extract when compared to control. Triphalakarpam at 200 mg/kg reduced the mean ulcer score respectively and percentage curative ratio of Triphalakarpam at 200 mg/kg was almost comparable to that of standard ranitidine.

Aspirin induced ulcer

Table 2 summarizes the results obtained in the experimental model of aspirin induced gastric ulceration in rats. Triphalakarpam was found to possess remarkable ulcer protective properties at 100 &200 mg/kg. The maximum effect of ulcer protection 70.46%) were produced at 200 mg/kg Triphalakarpam and the standard drug ranitidine 30 mg/kg gave 82.68% of ulcer protection.

DISCUSSION

The anti-ulcer activity of Triphalakarpam was evaluated by pylorus ligation, aspirin induced ulcer models. These models represent some of the most common causes of gastric ulcers in human. So it has been proposed that in pyloric ligation, the digestive effect of accumulated gastric juice and interference of gastric blood circulation are responsible for induction of ulceration. The anti-ulcer activity of Triphalakarpam in pylorus ligation model is evident from its significant reduction in gastric volume total acidity, free acidity, ulcer index and increase in pH of gastric juice. NSAIDs like aspirin causes gastric mucosal damage by decreasing prostaglandin levels through inhibition of PG synthesis. Triphalakarpam a Siddha formulation was significantly effective in protecting gastric mucosa against aspirin induced ulcers. In this study we observed thatTriphalakarpam Siddha formulation provides significant anti-ulcer activity against gastric ulcer in rats.

CONCLUSION

On the basis of the present results, it can be concluded that the anti-ulcer activity elucidated by Triphalakarpam Siddha formulation could be mainly due to the modulation of defensive factors through an improvement of gastric cytoprotection and partly due to acid inhibition.

Table 1: Effect of various extracts of Triphalakarpam against pylorus ligation induced gastric ulcer in rats

Group	Treatment and Dose mg/Kg	Gastric volume (ml)	pH	Free acidity (mEq/l)	Total acidity (mEq/l)	Ulcer score	% Inhibition of ulcer
I	Control distilled water ml/kg	7.5± 0.12	2.85± 0.14	26.91± 0.06	59.60 ±0.30	4.54 ±0.56	---
II	Standard ranitidine 30 mg/kg p.o	3.3± 0.07	5.56± 0.12	10.45± 0.02	22.76 ±0.24	1.74 ±0.12	82.80***
III	*Triphala karpam* 100mg/kg	5.1± 0.21	4.24± 0.14	17.47± 0.08	39.65 ±0.08	3.04 ±0.14	70.24**
IV	*Triphala karpam* 200mg/kg	4.2± 0.14	4.96± 0.18	15.32± 0.07	31.24 ±0.21	2.54 ±0.16	78.34***

Table 2: Effect of Triphalakarpam against aspirin induced gastric ulcer in rats

Group	Treatment and Dose mg/Kg	Aspirin	
		Ulcer index	% of Ulcer protection
I	Control distilled water ml/kg	8.2 ± 0.60	----
II	Standard Ranitidine 30 mg/kg p.o	2.30 ± 0.43	82.68***
III	Triphala karpam 100mg/kg	4.46 ± 0.65	46.54**
IV	Triphala karpam 200mg/kg	2.92 ± 0.32	70.46***

Reference:

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Amazing Benefits of Herbodaya Triphala Juice

With its origins in India over three thousand years ago, Ayurveda is considered one of the oldest medicinal systems in the world. One of the best ayurvedic herbs, Triphala, can treat a variety of illnesses and strengthen the body's defenses. Due to the numerous advantages, it offers the human body, it has gained great popularity worldwide. You can consume Triphala in various forms, like Triphala powder, Triphala juice and Triphala tablet.

What is Triphala?

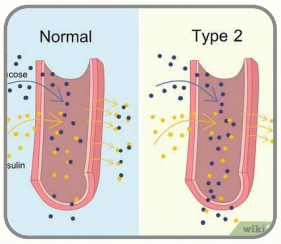
Triphala has been used as the best ayurvedic medicine since ancient times. The word "Triphala" is formed from 2 words, i.e., "tri+phala", which basically means "three fruits".

It contains a fine blend of three Indian plants. They are Indian gooseberry(Amla), black myrobalan(Haritaki), and bellericmyrobalan(Bibhitaki).

- Amla is rich in minerals, vitamin C, and amino acids. It is a powerhouse of essential antioxidants (prevent damage to cells) like phenols and tannins. Research says that Amla's extract may have anti-cancer properties.
- Bibhitaki is also filled with a large number of useful antioxidants like tannins, flavones, lignans, and Ellagic acid. These substances help to strengthen `muscles and bones, maintain blood sugar and cholesterol levels, and even give anti-inflammatory results to the body.
- Haritaki is the ideal source for obtaining vitamin C and different minerals like copper, iron, magnesium, and potassium. It also consists of antioxidants like polyphenols, anthocyanins, and terpenes.

Triphala juice benefits

Helps to treat Type 2 Diabetes



Generally, type 2 diabetes is a stage in which the blood sugar levels of a person rise and remain elevated. Triphala is the best herb recommended as a diabetes therapy. It contains polyphenols like tannins that resist the glycolytic enzymes by efficiently linking to proteins, which leads to a reduction in blood glucose levels. Triphala's juice prevents blood sugar's significant increase after meals by slowing the digestion and absorption of starch. One of the main benefits of Triphala is that it guides the pancreas in promoting insulin production to improve sugar absorption in cells.

Promote Weight Loss

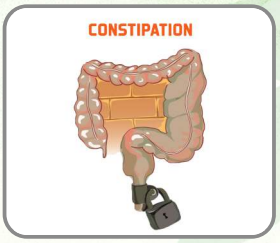
It is able to release the Ama (Indigested food) from your stomach and intestines easily. Additionally, the detoxifier also works as a colon toner, tightening the muscles of the colon to maintain a healthy digestive system. A healthy digestive tract promotes quicker digestion, assists in the prevention of constipation, and thus helps lose weight.

"Try Herbodaya triphala juice, which comprises antioxidant-rich natural qualities of Amla, Haritaki, and Bahera. It facilitates abdominal (belly) fat removal, which helps you lose weight. It even removes the body's unwanted and undissolved substances."

Sustaining a Healthy Digestive System

Triphala prevents the development of dangerous microorganisms in the intestines. Additionally, it promotes the development of beneficial bacteria in your digestive tract. Overall, it maintains the equilibrium of stomach bacteria, which results in a healthy digestive system. Triphala juice is also useful for treating gastric ulcers, preventing diarrhoea, and treating constipation. Triphala is a combination of three beautiful herbs that help to eliminate waste, reduce stomach acidity, and keep the stomach clean.

Utilized as Herbal Laxative



Triphala's juice works as an amazing natural laxative because it contains mixed properties of Amla, Bibhitaki and Haritaki in it. These herbs increase the regularity of bowel motions, relieve abdominal pain, and lessen all indigestion-related symptoms. Its laxative qualities make it the ideal remedy for eliminating toxins from the body and controlling intestinal inflammation.

Nourishes Skin and Hair

The anti-inflammatory and antioxidant characteristics of Triphala heal the quality of your skin tissues. It also reduces skin redness, hyperpigmentation, and inflammation problems' study found that putting Triphala paste on the skin can accelerate healing from wounds, assist in rebuilding skin protein, keep moisture in the skin, and stimulate collagen production.it is safe and advantageous for all skin types because it is Tridoshic in nature. Numerous hair issues like dandruff, early hair loss, greying, and split ends can be successfully treated with Triphala.

Protection Against Dental Problems

Triphala contains anti-bacterial and anti-inflammatory abilities that can safeguard you against a variety of tooth issues. Some studies say that using Triphala to rinse your mouth in the morning can reduce your oral problems like gingivitis, plaque, and cavities, and also stop other fungal infections in your teeth. Moreover, the antioxidant qualities of Triphala juice are also beneficial in reducing mouth soreness.

Good for Eyes

Triphala is useful for preventing eye conditions such as macular degeneration, oxidative stress-related visual issues, senile cataracts, etc. in the form of juice or an eyewash produced from Triphalachurna. In addition to strengthening eye muscles and avoiding cataracts, glaucoma, and other age-related eye degenerative illnesses, the combination of vitamin C and flavonoids increases glutathione levels and antioxidant enzyme activity.

How is Herbodaya'sTriphala Juice Beneficial?

- Amla, Haritaki, and Bahera are expertly blended in skm'sTriphala juice. It has cold-pressed amla enriched with vitamin C that boosts the metabolism rate.
- Natural vitamin sources included in Bahera aid in the body's detoxification and build a strong immune system.
- Because of anti-inflammatory and antioxidant qualities of Haritaki aid in good digestion and prevents constipation.

Our Triphala juice purifies the blood by eliminating impurities and aids in blood sugar management. Additionally, it promotes cavity prevention and improves oral health.

Herbodayatriphala juice is a trusted and reliable brand. It is an herbal juice manufactured in a GMP-certified, FSSAI-approved facility with all-natural and organic components.

It is all-natural without the addition of chemicals, heat, sugar, flavours, or colours. Using the measuring cap, mix 30 ml of juice with 30 ml of water. Take it twice daily before meals. At least one bottle is required for maximum benefit.

FAQ's

Q1. Can we regularly consume Triphala juice?
The daily intake of Triphala is regarded as safe. The usual daily dosage ranges from 500 mg to 1 gm.

Q2. What time of day is ideal for taking Triphala?
Typically, Triphala juice should be taken on an empty stomach.

Q3. How much Triphala juice needs to be consumed daily?
Consume no more than 30ml of Triphala juice each day for the best Triphala benefits.

Best **Memory Enhancer...**

- Improves memory
- Corrects Neurological problems
- Improves speech in children

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