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MANAGEMENT OF VENPULLI (VITILIGO) WITH SIDDHA FORMULATION PAPPULAARISHTAM - A CASE REPORT

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ABSTRACT

Background: Vitiligo or *Venpulli,* is depigmented disorder that results in the formation of white patches on the skin due to the loss of melanocytes. This case report explores the efficacy of *Pappulaarishtam,* a Siddha herbal formulation, in the management of vitiligo.

Objective: This case report aims to evaluate the effectiveness of *Pappulaarishtam,* a Siddha herbal formulation, in treating vitiligo (*Venpulli)* focusing on clinical outcomes like repigmentation, adverse effects and exploring its potential as a complementary therapy.

Methodology: A 35-year-old male patient diagnosed with *venpulli* was administered *Pappulaarishtam,* a Siddha herbal formulation for six months. The patient was monitored for clinical improvements, repigmentation and VASI Score was recorded for prognosis. Regular follow-up visits were conducted to assess treatment progress.

Result: Significant repigmentation was observed in the affected areas of the skin after three months of treatment with *Pappulaarishtam.*

Conclusion: *Pappulaarishtam* shows promising results as an effective and safe alternative treatment for vitiligo, warranting further clinical investigation.

Keywords: *Venpulli, Pappulaarishtam,* Siddha formulation,VASI Score, Repigmentation.

Introduction

Indian traditional medicinal systems are considered as one of the oldest treatments in human history and it plays an important role in encountering global health care needs [(1)].

Siddha philosophy is based on the concept of *Mukkutram* (three humors - *Vatham, Pitham*, and *Kapham)* which govern the physiological and pathological processes of the human body. Disease is understood as an imbalance among these humors, and treatment aims to restore equilibrium through diet, lifestyle modification, and herbal or Herbo-mineral formulations. The system recognizes **4448 types of diseases** diagnosed using the classical *Ennvagai Thervu* (eight-fold diagnostic method)

which includes pulse reading (*Naadi*), urine analysis (*Neer*), and examination of voice, tongue, eyes, skin, stool, and touch. In the Siddha system, *Venpulli* is classified under the 18 types of *Kuttam* (skin disorders), and is also referred to as *Venpadai*, *Venkuttam*, or *Swvetha Kuttam*. [(2)] Vitiligo is a skin disorder characterized by the loss of melanocytes, the cells responsible for pigment production, leading to irregular white patches on the skin. The exact cause remains unclear, though autoimmune, genetic, and environmental factors may play a role.[(3)] It can affect individuals of any age or ethnicity and is often associated with psychological and social challenges due to its visible nature. The condition may progress unpredictably, with some patients experiencing spontaneous repigmentation.Vitiligo poses not only cosmetic concerns but also significant psychological stress especially in children and individuals with darker skin tones. Research continues into the disease's mechanisms and treatment advancements. Early detection and intervention are essential to manage the condition effectively. [(4)] A little more than 1% to 2% of people worldwide suffer from this condition.[(5)] Indians from the Indian subcontinent had the greatest incidence ever noted[(6)]. In Siddha literature, Siddhar *Yugimuni* mentioned skin diseases as *Kuttam* and classified it into 18 types. *Venkuttam* or Swetha *kuttam* is one among them[(7)]. The following vitiligo case was treated with the *Pappulaarishtam,* a Siddha proprietary medicine[(8)]. It has shown promising results in managing *Venpulli* through its antioxidant, immunomodulatory, and melanocyte-restorative properties. This case report highlights the therapeutic efficacy of *Pappulaarishtam* for *Venpulli*, demonstrating visible repigmentation and improved quality of life over the course of treatment.

Material and methods

Case presentation

A 35-year-old male presented with the complaint of multiple, hypopigmented patches on his feet and both hands without associated symptoms like pain or itching, but expressed significant psychological distress due to the visible nature of the lesions for past six month was reported at Post graduate Noi Naadal outpatient Department at Arignar Anna Government Hospital of Indian Medicine, Arumbakkam, Chennai. The lesions on the hands and feet showed changes in size and pigmentation. He experienced disturbed sleep due to psychological distress. There was no relevant family history related to his illness. There was no history of hypothyroidism, Addison's disease, pernicious anemia, type 1 diabetes mellitus, or other autoimmune, metabolic, or genetic disorders.

The condition was diagnosed as vitiligo, and he underwent allopathic treatment at various reputed dermatology clinics. He was treated with oral and topical corticosteroids, along with topical immunosuppressants. Initially, he noticed a good response during the early stages of treatment; however, over time, he observed an increase in the size of the lesions, with the patches spreading over a larger area of the chest and both cheeks. He continued allopathic treatment for three months but remained unsatisfied with the results.

Clinical findings on examination

Physical examination was conducted after obtaining informed consent. On examination, he was active, well-oriented to time and place, and mentally stable. Inspection of the skin revealed milky-white patches with irregular margins on the palmar surfaces of the hands and dorsal surfaces of the feet, extending slightly to the fingers and toes. The distribution of lesions indicated the acrofacial type of vitiligo due to the involvement of the hands and feet. The patches were whitish, smooth, and free of scales, with no loss of sensation. He was diagnosed with Venpulli (vitiligo). Figure 1 shows the hypopigmented lesions before treatment.

Vitiligo area scoring index

The Vitiligo Area Scoring Index (VASI) is a quantitative assessment tool used to evaluate the extent and severity of vitiligo. It is calculated using the following formula,

VASI = ∑All body sites [HandUnits]×[Residual depigmentation].

VASI score	−50 ~ −25	Much worse
VASI score	−25 ~ −10	Worse
VASI score	−10 ~ 0	Minimally worse
VASI score	0 ~ +10	Minimally improved
VASI score	+10 ~ 25	Improved
VASI score	+25 ~ 50	Much improved
VASI score	+50~	Very much improved

Table 1: Siddha Medicines given for Treatment

Internal Medicine	Route Of Administration	Dose and Adjuvant	Time Of Administration	Duration
Agathiyar Kuzhambu[8]	Oral	130 mg with 30ml of Arasa illai kozhunthu saaru	Early morning after waking	One time
Pappulaarishtam	Oral	2 tablespoons with Luke warm water	Twice a day after meal	90 days

Table 2. Ingredients of Pappulaarishtam

S.No	Ingredient picture	Botanical name	Siddha Name	Part used	Activity
1.		*Prosopsis julifora (Babul) / Acacia arabica*	Karuvellam pattai	Bark	Anti-inflammatory [9]
2.		*Bauhinia tomentosa*	Kattathipoo	Flower	Anti-inflammatory [10]
3.		*Piper longum*	Thippili	Fruit	Anti-inflammatory [11]
4.		*Myristica fragrans*	Jaathikkai	Seed	Anti-microbial [12]
5.		*Illicium verum*	Thakkolam	Fruit	Anti-inflammatory [13]
6.		*Elettaria cardamomum*	Yelam	Seed	Anti-inflammatory [14]

7.		*Cinnamomum verum*	Lavangappattai	Bark	Anti-microbial [15]
8.		*Syzygium aromaticum*	Lavangapathiri	Flower buds	Anti-inflammatory [16]
9.		*Woodfordia fruticosa*	Naakesaram / sirunaagapoo	Flower	Antioxidant [17]
10.		*Piper nigrum*	Milagu	Fruit	Anti-inflammatory [18]

Preparation of pappulaarishtam

200 gm of *Acacia arabica* bark are soaked in two litres of water and boiled for 16 hours to reduce the decoction. After it cools, add the following ingredients:

Jaggery – 300 gm, *Kaattathi poo (Bauhinia tomentosa)* – 20 gm, *Thippili (Piper longum*) – 20 gm, *Myristica fragrans* (Nutmeg), *Illicium verum (thakkolam), Cinnamomum verum (Lavangapathiri)*, *Elettaria cardamomum (*Cardamom), *Syzygium aromaticum* (Lavangam), *Sirunaagapoo* (*Mesua ferrea*) and *Milagu* – each 10 gm (in powdered form)

All the above ingredients given in Table 2 are mixed thoroughly and placed in a mud pot for fermentation over a period of 30 days. After fermentation, the mixture is filtered and stored for use.

Treatment protocol

At first, the patient was given *Agathiyar kuzhambu* 130 mg with 30ml of *Arasa illai kozhunthu saaru* for purgation at early morning. After purgation procedure, He was prescribed *Pappulaarishtam* 2 tablespoons with Lukewarm water, twice a day after meal as internal medicine. Diet containing an iron- and antioxidant-rich diet, including green leafy vegetables, whole grains, dates and chickpeas along with adequate water intake and to avoid Brinjal, bitter gourd, Millets like pearl, sea foods like fish, crab, prawn were advised to avoid during the treatment. The patient was advised to visit the OPD weekly once and followed up for a period of 3 months. There was no remission noticed during the follow up period. The timeline of symptoms and treatment are given in Table 3 and the images of the prognosis in Figures 1,2&3

Table 3. Timeline of Symptoms, Treatment with VASI score

DAYS	SYMPTOMS	MEDICINES	VASI SCORE
Day 1	Depigmented macules present in his both hand and feet, Itching and Burning sensation present	*Agathiyar kuzhambu* 130 mg with 30ml of *Arasa illai kozhunthu saaru* for purgation at early morning for purgation	*-23*
Day 2	Same symptoms	No medicines. Advised to take oil bath.	-23

Day 3	Depigmented macules present in his both hand and feet, itching slightly reduced	*Pappulaarishtam* 2 tablespoons with Lukewarm water, twice a day after meal as internal medicine.	*-22*
Day 20	Depigmented macules color slightly changed in his both hand and feet, itching slightly reduced	Same medicines continued	-8
Day 32	The depigmented patches were become moderately turned into white in color. No itching and burning sensation present	Same medicines continued	20
Day 45	The rate of spreading of depigmented patches were reduced than before. No new depigmented spots appeared.	Same medicines continued	35
Day 60	The majority of the depigmented area had achieved normal skin color	Same medicines continued	50

Outcome

The assessment was conducted before treatment, during follow-up visits, and after completion of treatment, based on changes in signs and symptoms. Image analysis was used to distinguish affected skin from normal areas, and the extent of involvement was calculated using the VASI score.

After one month of treatment, repigmentation was observed within the depigmented patches, with no increase in patch size and no new depigmented spots, indicating a favorable prognosis. By the end of two months, most of the depigmented areas had regained normal skin tone. The VASI score improved from −23 (worse) before treatment to +50 (much improved) after treatment, reflecting significant clinical improvement. The lesions after treatment were shown in figure 2 & 3

Results

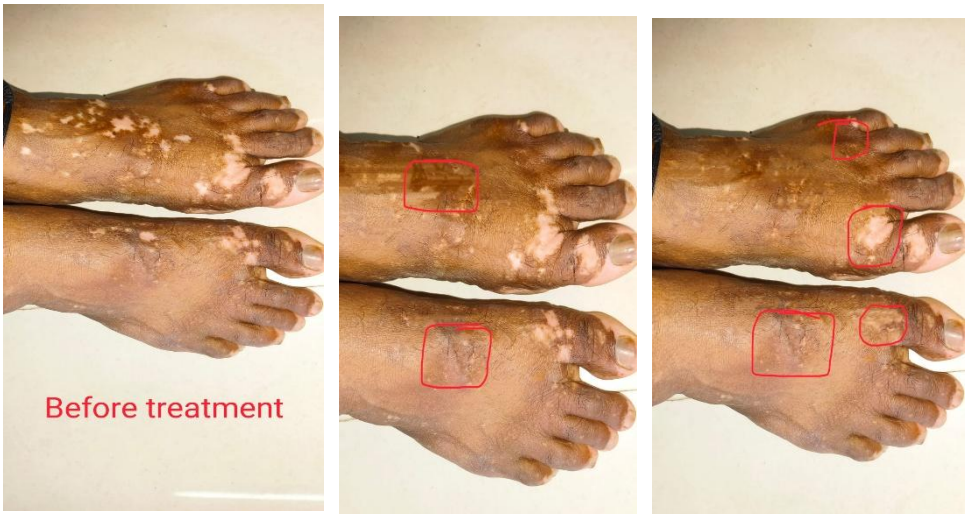

Figure 1. Images of right and left foot before treatment

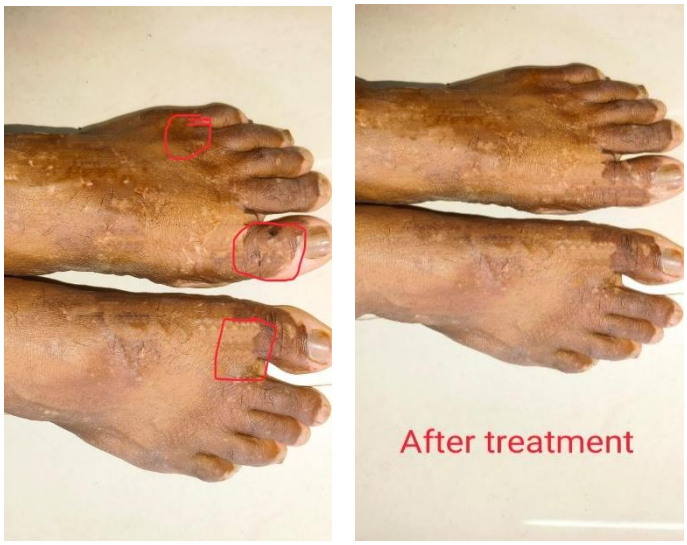

Figure 2. Image of right and left foot after treatment

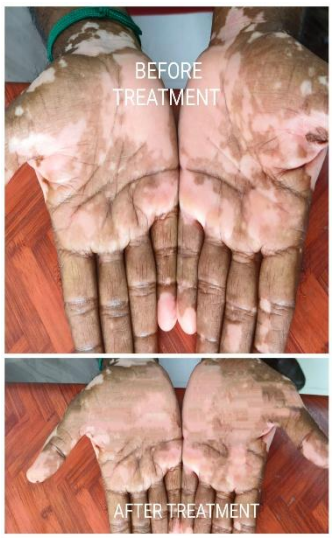

Figure 3 Image of right and left hand before and after treatment

Adverse events:
No adverse reactions were noted during the treatment.

Discussion
Vitiligo is a skin condition where patches of skin lose their pigment, resulting in white spots or patches. It occurs when melanocytes, the cells responsible for skin color, are destroyed or stop functioning. Topical and systemic corticosteroids and immunosuppressive drugs are used extensively in the management of vitiligo though they have good prognosis. Long term usage of these medicines manifests complications,[19] considering limitations of the contemporary medicine system, Siddha has much convincing approach. The unique Ayurveda, Yoga, Unani, Siddha and Homoeopathy (AYUSH) systems of India are based on definite medical philosophies and represent a way of achieving a healthy lifestyle with conventional and established ideas on the prevention of diseases and the promotion of health[20].The case strength is that there was no prior history of thyroid dysfunction, metabolic or autoimmune illnesses. This patient was presented with hypo pigmented lesions and diagnosed as *Venpulli* (*Swethakuttam, Venkuttam*) which are the similar terms for Vitiligo. As mentioned by Siddhar *Theraiyar* "*Vaatha malaathu meni kedathu*", deranged *Vaatham* is the main reason for all skin diseases[21]. As per the quote "*Viresanathal vatham thaazhum"*,[22]Purgation was prescribed with *Agathiyar kuzhambu* with *Ficus religiosa* leaves to alleviate the deranged *Vaatham* followed by *Pappulaarishtam*. In *pappulaarishtam, Karuvelampattai* (*Prosopsis julifora (Babul) / Acacia arabica)* had antioxidant activity which fight against the free radical and improves skin color and retain the pigmentation. Another main herbal in the medication was *Bauhinia tomentosa* it contains flavonoids and triterpenoids which have the anti-inflammatory action to reduce the hypopigmented lesions. There are many herbal medicines that are frequently used to cure vitiligo. However, its precise ingredients and mode of action are yet unknown. Because there aren't enough clinical trials with bigger sample sizes, they still have a way to go before they can be considered an anti-vitiligo medication. This case demonstrates the potential benefits of Siddha treatment for managing eczema.

Patient perspective
The patient shared his perspective about the *Siddha* treatment in his local (Tamil) language . He had depigmented itching and burning sensation patches at the time of presentation, while he was free from all the signs and symptoms and felt satisfied with *Siddha* medicines at the end of treatment.

Conclusion

In the present case, the simple internal and external OPD medicines of Siddha showed remarkable prognosis in correcting complex pathophysiology Vitiligo. The treatment protocol was adopted as per *Siddha* and significant response was observed much earlier. No recurrence reported in the follow up period. Siddha treatment led to speedy and substantial recovery for the case of Venpulli (vitiligo). However, the present study cannot be generalized, and further long-term follow-up studies with larger sample sizes are required to substantiate these findings.

Informed consent

Written permission for the Images and publication has been obtained from the patient.

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Author's contributions

All the authors contributed equally to the design and execution of the article.

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Ethical approvals

This study does not require ethical clearance as it is a case study

Conflicts of interest

Nil

Data availability

This is an original manuscript, and all the data are available for only review purposes from the principal investigators.

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