

Ayurvedic Approach in the Management of Bacterial Folliculitis: A Case Study

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ABSTRACT:

Bacterial folliculitis, characterized by inflammation of hair follicles, is a common dermatological condition. Ayurvedic treatments have been explored for their efficacy in managing this condition. A 60-year-old female with bacterial folliculitis, presenting with symptoms of painful tender skin, and pus-filled blisters, itching underwent treatment at OPD of Rasashastra & Bhaishajya Kalpana, Government Ayurved College and Hospital, Vadodara. The treatment protocol included oral administration of *Panchatiktaghrita Guggulu* and *Triphala Guggulu*, along with a local application of *Karanja Taila*. The patient's progress was evaluated over eight weeks, focusing on symptom improvement and patient satisfaction. A significant reduction in inflammation, itching, pain, and pus-filled blisters was observed, accompanied by substantial lesion healing. The treatment regimen was well-tolerated without adverse effects. This case study highlights the successful management of bacterial folliculitis using Ayurvedic interventions, specifically *Triphala Guggulu*, *Panchatiktaghrita Guggulu*, and *Karanja Taila*. Ayurvedic therapies show promise as effective treatments for bacterial folliculitis.

KEYWORD: Ayurved, *Karanja Taila*, *Panchatikta Ghritha Guggulu*, Skin disease, *Triphala Guggulu*

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INTRODUCTION:

Folliculitis is a common, skin condition in which the hair follicle becomes inflamed and forms a pustule or erythematous papule of overlying hair-covered skin. While this is a non-life-threatening condition and in most

cases is self-limited, it can present challenges for immunocompromised patients and in some cases progress to more severe diseases.^[1] This disorder is predominantly caused by bacterial infection of either superficial or deep hair follicles, though it can

also be induced by fungal species and viruses. The primary etiological agents of folliculitis include superficial bacterial folliculitis, Gram-negative bacterial folliculitis, *Pityrosporum* folliculitis, viral folliculitis, Demodex folliculitis, Eosinophilic folliculitis.^[2]

The most common form of folliculitis, this particular condition is usually caused by the bacteria *Staphylococcus aureus*.^[3] Bacterial folliculitis is a prevalent dermatological condition marked by the inflammation of hair follicles due to bacterial infection. This disorder typically presents with uncomfortable symptoms including tender, red, and inflamed skin, pus-filled blisters, and persistent itching.^[4] These symptoms can significantly affect a patient's quality of life, causing physical discomfort and psychological distress. Folliculitis is anywhere on the body that has hair. Common places are hair-bearing areas, including the bilateral upper and lower extremities, chest, back, face, and scalp.^[5] Conventional management strategies for bacterial folliculitis often include the use of systemic and topical antibiotics, along with antiseptic agents to control bacterial growth and reduce inflammation.^[6] However, the increasing concern over antibiotic resistance and searching for more holistic, sustainable therapeutic options have spurred interest in alternative medicine approaches, including Ayurveda.

Ayurvedic treatments aim to restore this balance through a combination of diet, lifestyle modifications, and herbal therapies. This case study explores the application of Ayurvedic treatments for bacterial folliculitis, focusing on a patient-centered approach using traditional Ayurvedic formulations to address this common condition.

CASE REPORT:

Case Presentation

On 12th June 2024, a 60-years-old married female presented with OPD no. 23126 came to the outpatient department of Rasashastra and Bhaishajya Kalpana, Government Ayurved College and Hospital, Vadodara. The patient was of lower-middle-class socio-economic status and resides with his family in Vadodara. She reported symptoms of painful, tender skin lesions characterized by pus-filled blisters, severe itching, and significant discomfort over the past several weeks. covering her face for 8 days (Figure - 1). Upon examinations and symptoms indicative, she was diagnosed with bacterial folliculitis.

Treatment History:

The patient underwent specific therapy for bacterial folliculitis and had a history of allopathic treatments, Amoxyclav 625 mg BD, fluconazole 150 mg OD, and clindamycin ointment for one week, the patient had not achieved meaningful relief from her symptoms. The clinical examination confirmed the diagnosis of bacterial folliculitis, characterized by inflamed hair follicles and multiple pustules distributed on the affected areas.

Examinations and measures

The Patient was firstly assessed with general examinations such as physical examination and *Ashtavidha Pariksha*. The patient was diagnosed with bacterial folliculitis after specific examinations and institutional assessment tools.

General Examination

The patient had a pulse rate of 76/min, blood pressure of 130/78 mm/Hg, Random blood sugar 121gm/dl, a temperature of 98.2°F, and a respiratory rate of 16/min; her height was 152 cm, weight was 62 kg, and BMI was 27 kg/m², with clear conjunctiva, a white-

coated tongue with no edema in any part of the body.

Ashtavidha Pariksha: The *Ashtavidha Pariksha* findings were as follows: *Nadi* (pulse) was *Kapha Pitta*. Urine output was 6-7 times per day and 0-1 time per night. The stool was described as normal. The tongue was coated white. The voice was clear. The skin was noted as *Sheeta* (cool to touch). Vision was normal. The overall body structure (*Akriti*) was normal.

Diagnostic Assessment: Criteria of Assessment with scoring is mentioned in table1-5.

THERAPEUTIC INTERVENTION:

Nidana Parivarjana: The patient was advised to avoid dietary substances that aggravate *Dosha* and induce symptoms. This included abstinence from consuming heavy foods, incompatible food combinations, acidic foods, excessive dairy products, etc.

Shamana Chikitsa: The details of treatment prescribed in this case is mentioned in table-6

RESULT:

After treatment, all symptoms were relieved as mentioned in table-7

1. Number of Pustules

Table 1: Assessment of Pustules with Scoring

Criteria	Scoring pattern	Score on screening day
No. of Pustules	0	3
No. of Pustules < 5	1	
No. of Pustules >5 but ≤ 10	2	
No. of Pustules > 10 but ≤20	3	
No. of Pustules > 20	4	

2. Area occupied by Pustules (upper and lower extremities/chest/back/ face/scalp)

Table 2: Assessment area occupied by Pustules with scoring

Criteria	Scoring pattern	Score on screening day
No part of the body	0	1
Any 1 Part is affected by Pustules	1	
Any 2 Part is affected by Pustules	2	
Any 3 Part is affected by Pustules	3	
Whole face/ upper and lower extremities/chest/back/ /scalp involvement	4	

3. Itching

Table 3: Assessment of itching with scoring

Criteria	Scoring pattern	Score on screening day
No itching	0	3
Rare itching but no need to scratch	1	
Frequent itch but no need for scratches	2	

Continuous itch sensation likes to scratch more & more	3	
Excessive itch which leads to pus/blood discharge	4	

4. Burning sensation

Table 4: Assessment of Burning sensation with scoring

Criteria	Scoring pattern	Score on screening day
No Burning sensation	0	1
Burning sensation only after itching	1	
Burning sensation while sun exposure	2	
Feeling heat & burning even in shadow which relives after Local application	3	
Constant burning not get much relive even after local application	4	

5. Pain

Table- 5: Assessment of Pain with scoring

Criteria	Scoring pattern	Score on screening day
No pain	0	2
Mild pain on deep palpation	1	
Pain during superficial palpation	2	
Pain without touch	3	
Continuous feeling heaviness & unbearable pain	4	

Table -6: Details of given drugs during treatment

Drug	Dose	Duration of treatment	Duration of follow-up	Anupana	Kala
<i>Panchatiktagbhrita Guggulu</i>	5 tab. Once	14 days	15 days	Luke warm water	Empty Stomach- morning
<i>Triphala Guggulu</i>	3 tab. Thrice	28 days	15 days	Luke warm water	After meal
<i>Karanja Taila</i>	Once	14 days	15 days	External application	At night

Table-7: Details of the score of symptoms before and after treatment with follow-up

Complaints	BT (0 week)	After Treatment (4 weeks) (Figure No. 5)	Follow up (4 weeks) (Figure No. 6)
Number of Pustules	3	0	0
Area occupied by Pustules	1	0	0
Itching	3	0	0
Burning sensation	1	0	0
Pain	2	0	0



Figure-1: Before Treatment



Figure-2: After 1 Week of Treatment



Figure-3: After 2 Weeks of Treatment



Figure-4: After 3 Weeks of Treatment



Figure-5: After 4 Weeks of Treatment



Figure-6: After 8 Weeks of Follow-Up

DISCUSSION:

Bacterial folliculitis is a prevalent dermatological condition marked by the inflammation of hair follicles due to bacterial infection. It typically presents with a range of uncomfortable symptoms including tender, red, and inflamed skin, pus-filled blisters, persistent itching, and burning sensation. According to Ayurveda, approaches of Bacterial folliculitis focus on balancing *Dosha*, particularly *Pitta* and *Kapha*. The Ayurvedic treatment protocol was meticulously

outlined, specifying the use of medicine such as *Panchatiktaghrita Guggulu*, *Triphala Guggulu* and external applications of *Karanja Taila*. Each treatment choice is justified about Ayurvedic principles of *Dosha* equilibrium and immune enhancement.

Probable mode of action of drugs:

Panchatiktaghrita ***Guggulu***:
Panchatiktaghrita Guggulu is mentioned in Bhaishajya ratnavali.^[7] In this formulation, *Ghrita* is combined with herbs like *Patola*

(*Trichosanthes dioica* Roxb.), *Nimba* (*Azadirachta indica* A. Juss), *Vasa* (*Adhatoda vasica* Nees), *Kantakari* (*Solanum virginianum* Linn.), *Guduchi* (*Tinospora cordifolia* Willd.), *Patba* (*Cissampelos Pareira* Linn.), *Vidanga* (*Embelia ribes* Brum.f.), *Devadaru* (*Cedrus Deodara* (Roxb) Loud), *Guggulu* (*Commiphora wightii* (Arn.) Bhandari) and others mentioned in reference. The majority of *Dravya* has properties similar to those of *Tridosha Shamaka*, *Kushthagbna*, and *Kandughna*.^[8] *Guggulu* is used traditionally for its immune-modulating, antimicrobial and anti-inflammatory properties.^[9] It reduces inflammation and supports the body's natural healing processes by eliminating toxins and balancing the *Pitta Kapha Dosha*, which is thought to be exacerbated in folliculitis.

Triphala Guggulu: *Triphala Guggulu* is mentioned in Sharangdhara Samhita.^[10] In this formulation, *Guggulu* is combined with herbs *Haritaki* (*Terminalia chebula* Retz.), *Bibhitaki* (*Terminalia bellerica*. Roxb.) *Amalaki* (*Emblica officinalis* Gaertn), *Pippali* (*Piper longum* Linn.) which possesses *Shothahara* (reduction in swelling or inflammation), *Vrana Shodhana* (wound cleansing), and *Vrana Ropana* (wound healing) properties.^[11] Contents of *Triphala Guggulu* exhibit remarkable anti-microbial action. Methanolic and Ethanolic Extract of *Guggulu* (*Commiphora wightii* (Arn.) Bhandari) has significant anti-microbial activity against Gram-positive and negative bacteria. Aq. extract of *Haritaki* (*Terminalia chebula* Retz.) showed a significant anti-bacterial as well as anti-microbial action. Ethanolic Extract of *Bibhitaki* (*Terminalia bellerica*.Roxb.) showed a wide range of susceptibility against multiple bacteria. *Amalaki* (*Emblica officinalis* Gaertn) exhibits a significant anti-microbial action against several bacteria and a fungus.^[12]

Karanja Taila: *Karanja Taila* is mentioned in Sharangdhara Samhita.^[13] A local application of *Karanja Taila* containing *Karanja* (*Pongamia pinnata* (Linn) Merr.), *Jati* (*Jasminum officinale* Linn.), *Karvira* (*Nerium indicum* Mill.), *Chitraka*

(*Plumbago zeylanica* Linn.), *Tila Taila* (*Sesamum indicum*. Linn) which is used to directly address the skin lesions. According to Ayurveda pharmacological activities of *Karanja* are *Kapha Vatabara*, and *Shothahara*. Its therapeutic utilities are in *Kushtha* (skin diseases), *Krimi* (worm infestation), *Kandu* (itching) and numerous other conditions.^[14]

The application of *Karanja Taila* was intended to relieve symptoms like pain, inflammation, and itching while aiding healing of the skin lesions because its antibacterial and anti-inflammatory capabilities have also been proven. It is useful for treating skin infections and reducing local inflammation.^[15]

The successful outcomes observed in this case study suggest that Ayurveda can offer a viable alternative or complementary approach to conventional treatments for bacterial folliculitis.

Follow-Up: The patient was followed up weekly for four weeks to monitor progress and adjust treatment as needed.

CONCLUSION:

The Ayurvedic treatment protocol comprising *Panchatiktagbrita Guggulu*, *Triphala Guggulu* and *Karanja Taila* demonstrated significant efficacy in managing bacterial folliculitis. The observed improvements in symptoms, coupled with the absence of adverse effects and high patient satisfaction, highlight the potential of these traditional therapies in treating this common dermatological condition. These findings advocate for further research with larger sample sizes and controlled studies to validate these results and explore the broader applicability of Ayurvedic treatments in dermatological and other medical conditions.

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REFERENCE:

1. Chiller K, Selkin BA, Murakawa GJ. Skin microflora and bacterial infections of the skin. *J Investig Dermatol Symp Proc.* 2001;6(3):170-174.
2. <https://www.ncbi.nlm.nih.gov/books/NBK547754/> [Last Accessed on 2024 August 20]
3. Chiller K, Selkin BA, Murakawa GJ. Skin microflora and bacterial infections of the skin. *J Investig Dermatol Symp Proc.* 2001;6(3):170-174.
4. Madison, B.L. Bacterial Folliculitis: Diagnosis and Treatment. *American Family Physician.* 2016; 94(4): 274-280.
5. <https://www.ncbi.nlm.nih.gov/books/NBK547754/> [Last Accessed on 2024 August 20]
6. <https://www.ncbi.nlm.nih.gov/books/NBK547754/> [Last Accessed on 2024 August 20]
7. Kaviraj Govind das, Bhaishyaratnavali, 54/233-236; Reprint edition;2018 Chaukhasurabharati Prakashan; Varanasi.
8. Subhash B Jamdhade, Sayali S. Sirsat, S. K. Jaiswal, Pradnya S. Jamdhade Effect of PanchatiktaGhrita Guggul orally and Karaveertailam locally in the management of Vicharchika w. s. r. to Eczema. A Case Study, *National Journal of Research in Ayurveda science*2022; 10 (1):1-8.
9. Prerna Sarup, Suman Bala, and Sunil Kambo, Pharmacology and Phytochemistry of Oleo-Gum Resin of *Commiphora wightii* (Guggulu) Hindawi Publishing Corporation, 2015(5)1-14.
10. Tripathi B. Sharangadhara, Sharangadhara Samhita *Madhyama Khanda* 7/82-83; Reprint Edition;2020 Chaukhambha Surbharti Prakashan; Varanasi, p-242.
11. Neelam Rawat, Yadevendra Yadav, Shuchi Mitra, Usha Sharma, Khem Chand Sharma, Anti-inflammatory and anti-microbial action of Triphala Guggulu: A REVIEW, *International. Journal. Res. Ayurveda Pharm.*2022 13 (4):1-10.
12. Tripathi B. Sharangadhara, Sharangadhara Samhita *Madhyama Khanda* 7/82-83; Reprint Edition;2020 Chaukhambha Surbharti Prakashan; Varanasi, p.-242.
13. Tripathi B. Sharangadhara, Sharangadhara Samhita *Madhyama Khanda* 9/156; Reprint Edition;2020 Chaukhambha Surbharti Prakashan; Varanasi, p. 240.
14. Sri Bapalal G Vaidya, Nighantu Adarsha, Vol. I, Palashadivarga 41/ 1 4 2 Chaukhambha Bharati Academy, Varanasi, 2022, p-392.
15. Vijendra Kumar and Gupta S. Pharmacological evaluation and action of Karanja Patra Kalka siddha Taila in Striae gravidarum, *World journal of pharmaceutical research* 2018; 7 (7):2047-2052