



EFFECT OF NATUROPATHY-BASED INTERVENTION IN A CHRONIC URINARY TRACT INFECTION: A SINGLE CASE STUDY

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ABSTRACT

Background: Urinary tract infection (UTI) is one of the most common bacterial infections affecting women and may become recurrent or chronic, resulting in persistent urinary symptoms, discomfort, and impaired quality of life. Although conventional antimicrobial therapy remains the standard treatment, recurrent or chronic cases may benefit from supportive complementary approaches that help alleviate symptoms and improve overall well-being. **Objective:** To evaluate the effectiveness of a short-term naturopathy-based treatment regimen in reducing symptoms associated with chronic urinary tract infection in a young female patient. **Methods:** A single female patient diagnosed with chronic urinary tract infection underwent a 10-day naturopathy intervention. The treatment protocol consisted of daily

hip baths with Triphala powder, application of a mud pack over the lower abdomen, and Triphala vaginal wash. Clinical outcomes were assessed by monitoring changes in urinary symptoms, including pain and itching, as well as urine appearance before and after the intervention. **Results:** At baseline, the patient experienced severe urinary discomfort characterized by pain, itching, and abnormal urine appearance. Progressive improvement in symptoms was observed during the treatment period. By the completion of the 10-day intervention, pain and itching had markedly reduced, and the urine returned to a normal straw color, suggesting clinical recovery. The patient also reported improved comfort during urination and an overall improvement in quality of life, with no adverse effects observed during the intervention. **Conclusion:** The findings of this case report suggest that a short-term naturopathy-based regimen incorporating Triphala hip bath, Triphala vaginal wash, and lower abdominal mud pack may serve as a beneficial supportive therapy for managing symptoms of chronic urinary tract infection. However, these findings are limited to a single case, and larger, well-designed controlled clinical studies are needed to establish the efficacy, safety, and generalizability of this therapeutic approach.

Keyword: Urinary tract infection, Chronic UTI, Naturopathy; Triphala, Hip bath, Vaginal wash, Mud therapy.

INTRODUCTION

Urinary tract infection (UTI) is one of the most common bacterial infections worldwide, affecting individuals of all ages, with women being disproportionately affected because of anatomical and physiological factors. It is estimated that more than half of all women experience at least one episode of UTI during their lifetime, and a significant proportion develop recurrent or chronic infections. Common clinical manifestations include dysuria, urinary frequency, urgency, suprapubic discomfort, burning micturition, and, in some cases, persistent genital irritation and itching that may adversely affect quality of life (Flores-Mireles et al., 2015; Bonkat et al., 2024). The standard management of UTI involves antimicrobial therapy based on the causative organism and severity of infection. Although antibiotics are highly effective in treating acute infections, recurrent or chronic UTIs remain a clinical challenge because of frequent relapses, antimicrobial resistance, adverse drug reactions, and disruption of the normal genitourinary microbiota. Consequently, there is increasing interest in complementary and integrative approaches that may support symptom relief and improve patient outcomes alongside conventional treatment (Bonkat et al., 2024; Gupta et al., 2011). Naturopathy emphasizes the body's inherent healing capacity through non-invasive therapies, including hydrotherapy, mud therapy, dietary modifications, and herbal interventions. Among herbal formulations, Triphala—a traditional Ayurvedic preparation composed of *Emblica officinalis*, *Terminalia chebula*, and *Terminalia bellirica* has been extensively studied for its antimicrobial, anti-inflammatory, antioxidant, and wound-healing properties. These pharmacological activities suggest that Triphala may be beneficial as a supportive therapy in reducing inflammation, microbial load, and associated symptoms in patients with chronic urinary tract infections. Therefore, this case report aims to evaluate the clinical effectiveness of a short-term naturopathy regimen incorporating Triphala hip bath, Triphala vaginal wash, and lower abdominal mud pack in the management of chronic UTI symptoms.

METHODOLOGY

Study Design: This study was conducted as a single-case observational study to evaluate the supportive effect of a short-term naturopathy-based intervention in the management of chronic urinary tract infection (UTI). The intervention was administered over a period of 10 consecutive days, and changes in clinical symptoms were documented throughout the treatment period. As a descriptive case study, no control group or randomization was employed.

Participant: A 23-year-old female with a six-month history of chronic urinary tract infection was included in the study. The patient presented with a persistent burning sensation during urination, severe itching, pain, dark yellow urine, and irritation of the genital region, which significantly affected her daily activities and quality of life. She voluntarily sought naturopathy treatment after experiencing persistent symptoms despite previous management. Written informed consent was obtained from the patient before initiation of the intervention.

Intervention Protocol: The patient underwent a standardized 10-day naturopathy treatment regimen. The intervention consisted of twice-daily hip baths using Triphala powder, daily application of a mud pack over the lower abdomen, and Triphala vaginal wash administered once daily from Day 3 to Day 10. In addition, the patient followed a structured therapeutic diet emphasizing adequate hydration, barley water, tender coconut water, coriander seed water, fresh fruits, curd, buttermilk, and easily digestible, fiber-rich meals while avoiding spicy and processed foods.

Outcome Measures: Clinical outcomes were assessed at baseline and monitored daily throughout the intervention. The primary outcome measures included the severity of itching using the Worst Itch Numeric Rating Scale, pain/irritation using a Numeric Rating Scale (0–10), and changes in urine appearance. Laboratory findings, including urine pus cell count before and after the intervention, were reviewed to support the clinical assessment.

Data Collection and Analysis: Daily observations were recorded in a structured case record form. Changes in symptom severity were analyzed descriptively by comparing baseline findings with daily clinical observations and post-intervention outcomes. Due to the single-case design, no inferential statistical analysis was performed. The findings are presented descriptively using tables and clinical observations.

The intervention was administered as part of routine naturopathy clinical care after obtaining written informed consent from the patient. Confidentiality and anonymity were maintained throughout the study by withholding personal identifiers. The patient was informed that the intervention was intended as supportive therapy and not as a replacement for conventional medical management. This case report was prepared in accordance with accepted ethical principles for reporting individual clinical cases.

INTERVENTION

The described intervention represents a structured 10 day naturopathic regimen used as supportive care in a case of Urinary Tract Infection (UTI). The protocol primarily includes hydrotherapy, local application therapy, and herbal-based cleansing practices aimed at reducing urinary tract irritation and associated symptoms.

Table 1

Days	7 AM	3 PM	3:30 PM	8:30 PM
1	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	-
2	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	-
3	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash
4	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash
5	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash
6	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash
7	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash
8	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash
9	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash
10	Hip bath with Triphala powder	Mud pack lower abdomen	Hip bath with Triphala powder	Triphala vaginal wash

Table 1 shows, the treatment protocol

The core component of the treatment is a hip bath with Triphala powder, administered twice daily throughout the 10 day period. Hip bath is traditionally considered beneficial in urogenital conditions as it may help improve local circulation, provide a soothing effect, and support hygiene in the perineal region. In addition, a mud pack applied over the lower abdomen is used daily, which is believed in naturopathy to exert a cooling and anti-inflammatory effect. This may help reduce pelvic discomfort and abdominal heat, which are commonly associated with urinary tract irritation. From Day 3 onwards, a Triphala vaginal wash is included in the regimen. This addition serves as a local cleansing measure and is intended to support microbial balance and reduce irritation in the urogenital region. Overall, the treatment follows a progressive, multi-modality external therapy approach, focusing on local detoxification, hygiene, and symptomatic relief. In the context of chronic UTI, this regimen is designed to complement internal healing processes by reducing inflammation, improving local comfort, and potentially decreasing symptom severity such as itching, burning, and irritation. While the observed clinical improvement suggests a positive supportive effect, this approach should be interpreted as complementary care rather than a standalone treatment for Urinary Tract Infection, and further controlled clinical studies are required to validate its efficacy.

DIET

The described dietary pattern reflects a structured, plant-based, hydrating, and easily digestible regimen commonly recommended as supportive care in Urinary Tract Infection (UTI). The diet emphasizes frequent intake of fluids, fiber-rich foods, and mild preparations that collectively support urinary health, reduce irritation, and promote systemic detoxification. A key feature of the regimen is consistent hydration, achieved through regular consumption of warm water, barley water, tender coconut water, coriander seed water, and lemon juice. These fluids help maintain urinary dilution, potentially reducing burning sensation and promoting urinary flushing. The solid food pattern predominantly includes light, low-spice, and fiber-rich meals. These foods are easy to digest and help reduce metabolic stress on the body during infection recovery. Vegetable-based meals form an important component, including bottle gourd, ridge gourd, ash gourd, snake gourd, spinach, chow chow, and cucumber. These vegetables are traditionally considered cooling, diuretic, and anti-inflammatory, which may help reduce urinary tract irritation.

Table 2

Days	6:30 AM	8 AM	11 AM	12 PM	4 PM	7 PM
1	Drink 1-2 cups of warm water	Idly with coconut chutney	Barley water	Dhal Rice with bottle guard curry and curd.	Barley water	Vegetable soup and chapati.
2	Drink 1-2 cups of warm water	Oats porridge	Tender coconut water	Rice with spinach and ridge guard and buttermilk.	Coriander seed water	Vegetable kitchadi
3	Drink 1-2 cups of warm water	Poha	Cucumber slices	Dhal Rice with snake guard curry and curd.	Tender coconut water	Chapati with bottle guard
4	Drink 1-2 cups of warm water	Ragi porridge	Banana stem juice	Rice with ash guard curry and curd	Barley water	Vegetable soup and chapati.
5	Drink 1-2 cups of warm water	Idiyappam with coconut milk	Papaya	Dhal Rice with chow chow and buttermilk.	Lemon juice	Vegetable kitchadi
6	Drink 1-2 cups of warm water	Idly with coconut chutney	Barley water	Dhal Rice with bottle guard curry and curd.	Barley water	Vegetable soup and chapati.
7	Drink 1-2 cups of warm water	Oats porridge	Tender coconut water	Rice with spinach and ridge guard and buttermilk.	Coriander seed water	Vegetable kitchadi
8	Drink 1-2	Poha	Cucumber	Dhal Rice	Tender	Chapati with

	cups of warm water		slices	with snake guard curry and curd.	coconut water	bottle guard
9	Drink 1-2 cups of warm water	Ragi porridge	Banana stem juice	Rice with ash guard curry and curd	Barley water	Vegetable soup and chapati.
10	Drink 1-2 cups of warm water	Idiyappam with coconut milk	Papaya	Dhal Rice with chow chow curry and buttermilk.	Lemon juice	Vegetable kitchadi

Table 2 shows, the diet protocol

Fermented and probiotic-supportive items such as curd and buttermilk are included to support gut and urogenital microbiota balance, which is relevant in recurrent UTIs. Mild fruit intake such as papaya and banana stem juice further supports digestion and provides natural enzymes and hydration. Overall, this diet pattern is non-irritating, hydrating, alkaline-leaning, and high in plant fiber, which may collectively contribute to reducing urinary irritation, supporting microbial balance, and enhancing recovery in chronic UTI conditions when used as a supportive nutritional approach alongside primary care.

RESULT

Table 3 shows, following a routine of taking a hip bath with Triphala powder and applying a mud pack on the lower abdomen and performing a Triphala vaginal wash. The prognosis is on the initial day of having severe itching and pain. After 10 days of treatment for naturopathy with minimal irritation or pain, urine appears in a normal straw color.

Table 3

Day	Clinical Features	WI-NRS	Pain/Irritation (0-10)	Urine Characteristics
1	Increased itching,	8	8	Dark yellow
2	Itching and irritation slightly reduced	7	6	Dark yellow
3	Slight relief, color changes begin	6	5	Straw color begins
4	Less itching during urination, irritation persists	5	6	Straw color
5	Gradual	4	4	Straw color

	reduction in irritation			
6	Pain and irritation reduced	3	3	Straw color
7	Further reduction in symptoms	2	2	Straw color
8	Stable improvement	2	2	Straw color
9	No pain and irritation	1	1	Straw color
10	Normal condition restored	1	1	-

Table 3 shows the UTI result

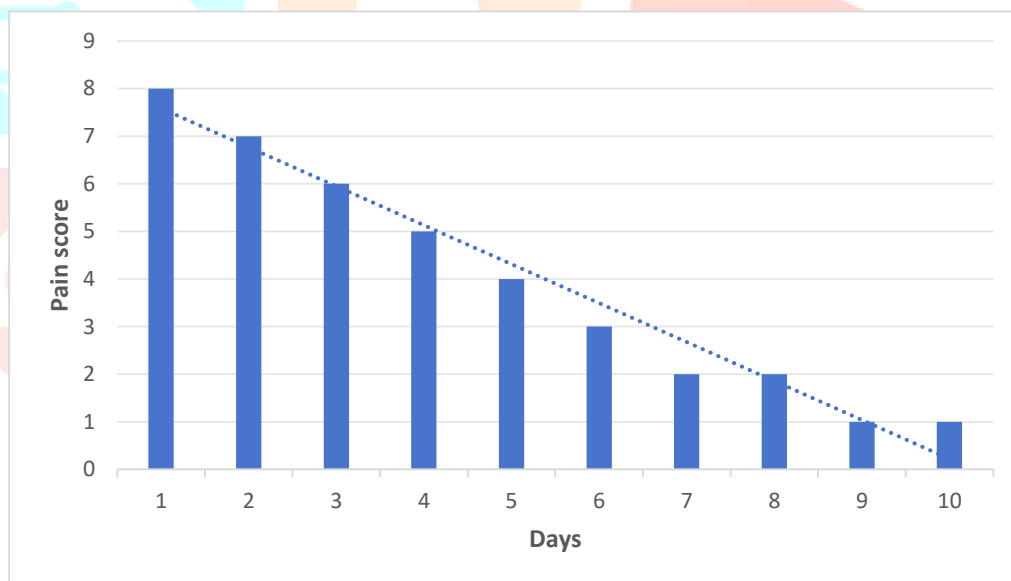


Fig.1 shows, the pain / irritation score

DISCUSSION

The present single-case study describes the outcome of a 10-day naturopathy-based intervention in a young female patient with a chronic urinary tract infection (UTI). The observed clinical course demonstrated progressive symptomatic improvement across urinary and cutaneous parameters, with near-complete resolution by day 10. While these findings suggest a potential supportive role of the intervention, they must be interpreted cautiously due to the inherent limitations of a single-case design and the absence of diagnostic confirmation of active infection throughout the intervention period.

Interpretation of Clinical Improvement: The gradual reduction in WI-NRS scores for itching and pain and normalization of urine color, indicates a temporal association between the intervention and symptom relief. The most notable improvement was observed after day 3, suggesting a possible cumulative effect of the multi-component regimen involving hydrotherapy (hip baths), topical mud application, and herbal cleansing (Triphala-based practices). However, in chronic or recurrent lower urinary tract symptoms, spontaneous fluctuation of symptoms is also common. Therefore, it cannot be

conclusively determined that the observed improvement was solely attributable to the intervention. Natural remission, hydration changes, placebo response, or improved personal hygiene practices during the study period may have contributed to symptom reduction. **Possible Mechanistic Considerations:** From a theoretical standpoint, the intervention components may have contributed to symptom relief through several non-specific physiological mechanisms. **Hydrotherapy (hip baths):** Warm water immersion may promote local vasodilation, improve perineal hygiene, and provide symptomatic relief from irritation. Such effects are generally supportive and do not directly treat the underlying bacterial infection. **Mud application (lower abdomen):** Although traditionally believed to exert cooling and anti-inflammatory effects in naturopathy systems, there is limited biomedical evidence supporting direct anti-infective properties. Any perceived benefit is more likely related to subjective relaxation and thermal regulation. **Triphala-based applications:** Triphala is reported in preclinical literature to possess antimicrobial and antioxidant properties. However, clinical evidence for its effectiveness in treating active UTIs remains insufficient. Its topical or external use, in this case, may have contributed to local hygiene and symptom relief rather than direct eradication of infection. **Dietary modifications:** Increased fluid intake and consumption of light, fiber-rich foods may have supported urinary dilution and reduced irritation during voiding. Such dietary patterns are known to improve general urinary comfort but are not standalone treatments for bacterial infections. On 3 March 2026, the patient had a pus cell count of 12–15, which reduced to 5–7 by 14 March 2026 after undergoing naturopathic treatment. This distinction is clinically relevant, as it affects interpretation of treatment efficacy.

Before

Age	: 23
Sex	: Female
<u>Examination of Urine</u>	
<u>Urine Routine</u>	
Alb	: Trace
Sugar	: Nil
Micro	Pus cells : 12-15
	Epi : 5-8
	RBC : Nil
	Cast : Nil
	Crystal : Nil
	Ketone bodies : Nil
	Urobilinogen : Nil
	Bilirubin : Nil
HPF	
LABORATORY TECHNICIAN	

After

Age	: 23
Sex	: Female
<u>Examination of Urine</u>	
<u>Urine Routine</u>	
Alb	: Nil
Sugar	: Nil
Micro	Pus cells : 5-7
	Epi : 3-5
	RBC : Nil
	Cast : Nil
	Crystal : Nil
	Ketone bodies : Nil
	Urobilinogen : Nil
	Bilirubin : Nil
HPF	
LABORATORY TECHNICIAN	

CONCLUSION

This single-case study suggests that a 10-day naturopathy-based intervention, consisting of hip baths with Triphala powder, mud pack application over the lower abdomen, Triphala vaginal wash, and a supportive dietary regimen, was associated with progressive reduction in urinary symptoms in a patient with chronic urinary tract infection (UTI). Marked improvements were observed in itching, pain, and urine characteristics over the course of the intervention, with near-complete symptomatic relief by day 10. However, given the absence of laboratory confirmation, control comparison, and long-term follow-up, the findings cannot be interpreted as definitive evidence of therapeutic efficacy. The observed improvements may reflect a combination of supportive care effects, improved hygiene practices, hydration, and natural symptom fluctuation rather than a direct curative effect on underlying infection. Therefore, this intervention should be considered a complementary supportive approach rather than a standalone treatment for chronic UTI. Further well-designed randomized controlled trials with

microbiological validation and larger sample sizes are required to evaluate the efficacy, safety, and clinical applicability of such naturopathy-based regimens in urinary tract infections. Further clinical trials with larger sample sizes are necessary to validate these findings.

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