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Therapeutic potential of Siddha pharmacotherapeutics and *Siddhar Yogam* in stress urinary incontinence: A clinical case documentation

Krishnaaveni Damodaran*, Shakthi Paargavi Ambalavanan, R. Gayatri, Srinivasan Venkatachalam, Ramamurthy Murugan, Elansekaran Selladurai & Christian Gnanaraj Johnson

Department of Noi Naadal, National Institute of Siddha, Tambaram Sanatorium, Tamil Nadu, India; *Corresponding author

Affiliation URL:

<https://nischennai.org/main/>

Author contact:

Krishnaaveni Damodaran - E-mail: drkrishveni87@gmail.com

Shakthi Paargavi Ambalavanan - E-mail: spaargavi@gmail.com
R. Gayatri - E-mail: dr.gayatri.nis@gmail.com
Srinivasan Venkatachela - E-mail: seenunis47@gmail.com
Ramamurthy Murugan - E-mail: ramsnis@gmail.com
Elansekarani Selladurai - E-mail: sekarnis78@gmail.com
Christian Gnanaraj Johnson - E-mail: christianvijila@gmail.com

Abstract:

Stress Urinary Incontinence (SUI) is the most prevalent subtype of Urinary Incontinence particularly in the perimenopausal and postmenopausal age groups, defined as the involuntary leakage of urine during activities that increase intra-abdominal pressure. This case report describes a 45-year-old female with a 1-year history of urinary leakage during exertional activities. It was clinically diagnosed with SUI. The patient underwent a 3 months integrative therapy comprising Siddha internal medications along with a *Siddhar Yogam* protocol focused on strengthening the pelvic floor muscle. After treatment the improvement in Severity, grading of urinary incontinence and quality of life was assessed by ICIQ-UI SF score from 20 to 10, ISI score from very severe to moderate and IIQ score moderate to slight suggesting a shift to moderate incontinence. Thus, data shows the potential of combining traditional Siddha medicine and yoga therapy in managing Stress Urinary Incontinence effectively, warranting further research through larger, controlled studies to substantiate these findings.

Keywords: Stress urinary incontinence (SUI), siddha medicine, *siddhar yogam* therapy, incontinence questionnaire-urinary incontinence short form (ICIQ-UI SF) score, incontinence severity index (ISI), incontinence impact questionnaire (IIQ) score pelvic floor muscle

Background:

Stress Urinary Incontinence (SUI) is the most common subtype of urinary incontinence, defined as the involuntary leakage of urine during physical activities that increase intra-abdominal pressure such as coughing, sneezing, laughing or physical exertion [1]. Stress Urinary Incontinence (SUI) occurs due to urethral sphincter incompetence or pelvic floor muscle weakness, leading to an inability to maintain urethral closure pressure during stress events [2]. Globally, urinary incontinence affects approximately 25-45% of adult women, with Stress Urinary Incontinence accounting for nearly 50% of cases [3]. Epidemiological studies indicate that Stress Urinary Incontinence (SUI) prevalence ranges from 16% to 45% among women, with higher incidence observed in perimenopausal and postmenopausal age groups [4]. The risk increases with advancing age, multiparity, vaginal childbirth, obesity, hormonal changes and pelvic floor trauma [5]. Stress Urinary Incontinence significantly impairs quality of life, affecting physical activity, sexual health, psychological well-being and social participation [6]. Many women experience embarrassment, anxiety and social withdrawal and reduced self-esteem, leading to delayed health-seeking behaviour and underreporting of symptoms [7]. Despite its high prevalence, Stress Urinary Incontinence (SUI) remains underdiagnosed and undertreated, particularly in low- and middle-income countries [8]. Conventional management strategies for Stress Urinary Incontinence (SUI) include pelvic floor muscle training, behavioural therapy, pharmacotherapy and surgical interventions such as mid-urethral sling procedures [9]. However, concerns regarding long-term safety, invasiveness, recurrence and accessibility have led to increasing interest in integrative and non-invasive therapeutic approaches [10]. In the Siddha system of medicine, urinary disorders are described in classical texts, with a condition termed *Sottu Neer* in *Yugi*

Vaithiya Chinthamani 800, which closely correlates with the clinical features of Stress Urinary Incontinence [11]. Siddha therapeutics emphasizes restoring functional balance through internal medicines, lifestyle regulation and physical practices aimed at strengthening neuromuscular control. *Siddhar Yogam* therapy, particularly pelvic floor focused *Asanam* and *Pranayamam*, has showed beneficial effects on pelvic floor strength, bladder control and psychosomatic health [12]. This case report presents a 45-year-old woman diagnosed with Stress Urinary Incontinence who was managed successfully using an integrative approach combining Siddha internal medication and a *Siddhar Yogam* protocol. The clinical outcomes were objectively assessed using validated Incontinence Severity and Quality of Life scales, highlighting the potential role of traditional medical systems and *Siddhar Yogam* as complementary therapies in Stress Urinary Incontinence (SUI) management. The present case report is unique and important because it provides one of the few documented clinical correlations between classical Siddha descriptions of "*Sottu Neer*" and modern Stress Urinary Incontinence using standardized diagnostic and outcome assessment tools. Unlike most reports that rely solely on subjective improvement, this case objectively evaluates treatment response using validated instruments such as the Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF) [13], Incontinence Severity Index (ISI) [14] and Incontinence Impact Questionnaire (IIQ) [15]. Therefore, it is of interest to provide preliminary clinical evidence supporting this conservative, non-invasive and cost-effective approach.

Case presentation:

A 45 years old female patient visited OPD, National Institute of Siddha on 12th September 2024 with the below complaints

Chief Complaints:

- [1] Involuntary leakage of urine while coughing, sneezing and while lifting heavy weight.
- [2] Inability to withhold urination during long hours of travel.
- [3] Duration: 1 year

History of present illness:

The patient was apparently normal 1 year ago. The symptoms began with involuntary leakage of urine while coughing, sneezing and lifting heavy objects. Gradually, she also experienced difficulty in withholding urination during extended travel. No previous episodes or history suggestive of urinary incontinence before this period. No family history of similar complaints.

Past medical history:

No history of diabetes mellitus, systemic hypertension, pulmonary tuberculosis, thyroid dysfunction, epilepsy.

Menstrual history:

Regular menstrual cycle: 5 days of flow every 28 days

Gynaecological history:

Married, 2 children, lower segment caesarean section (LSCS) done for both children, no associated gynaecological complaints.

Clinical examination:

Abdominal examination and urogenital examination was normal, cough stress test: positive.

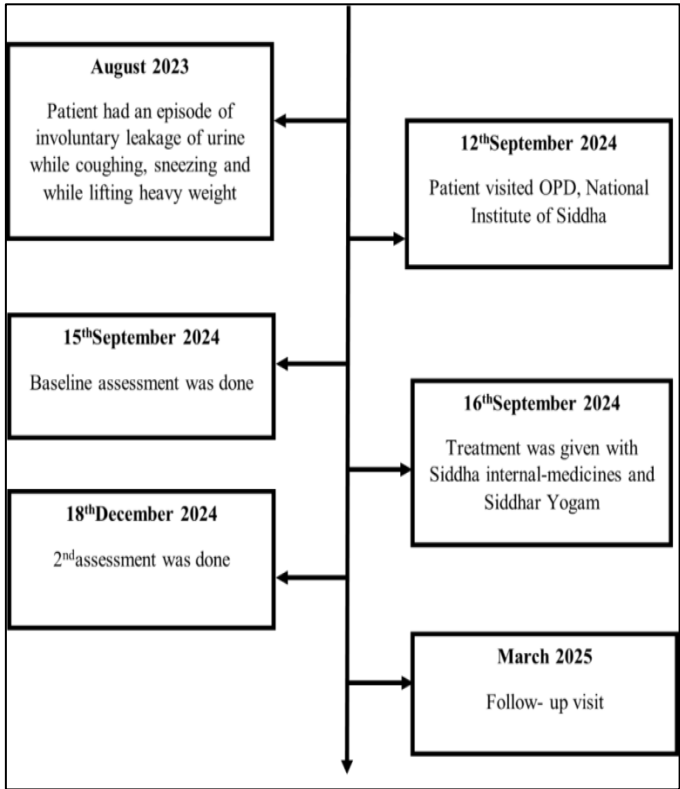


Figure 1: Timeline

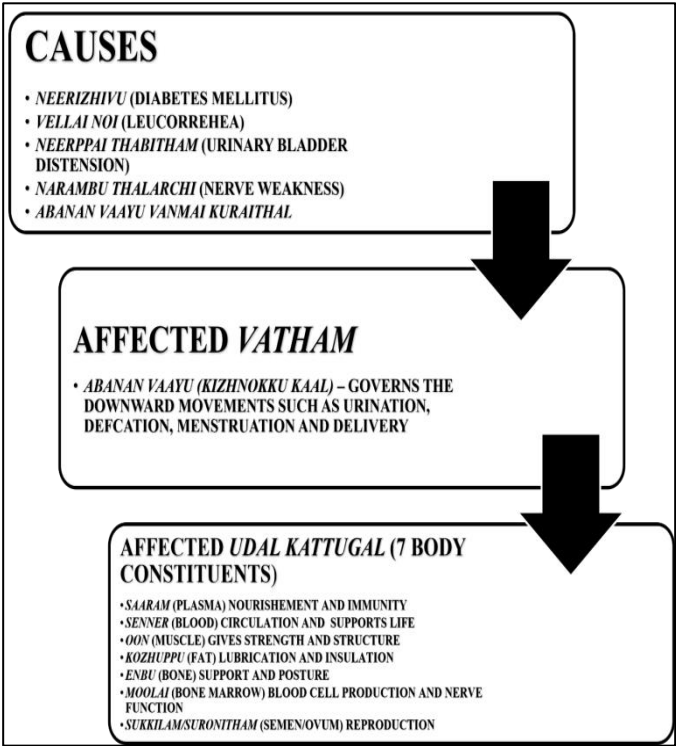


Figure 2: Siddha pathogenesis

Diagnostic assessment:

The patient was assessed with below mentioned scoring for evaluating the severing, grading and quality of life (Table 5).

- [1] Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF) score [13]
- [2] Incontinence Severity Index (ISI) score [14]
- [3] Incontinence Impact Questionnaire (IIQ) score [15]

Differential diagnosis:

The patient presented with a consistent history of involuntary urine leakage during increased intra-abdominal pressure activities such as coughing, sneezing and lifting heavy objects without any associated urgency, frequency or nocturia. These features are clinically characteristic of Stress Urinary Incontinence (SUI). As the differential diagnosis is detailed in Table 1.

Follow-up and outcome:

The patient was reviewed at regular intervals after completion of the initial 3 months integrative treatment regimen comprising Siddha internal medications and Siddhar Yogam therapy. Following this period, the patient continued the same therapeutic protocol for an additional 3 months under close follow-up to assess sustained clinical response and tolerance. The patient remained compliant with follow-up visits and was carefully monitored for recurrence or worsening of symptoms. Throughout the follow-up duration, the patient showed persistent clinical improvement with no relapse of symptoms, indicating sustained benefit of Siddha internal medicines and

Siddhar Yogam therapy. No adverse events or treatment related complications were reported during the follow-up or observation period. The patient was assessed using below mentioned scorings.

Table 1: Differential diagnosis

S.No	Investigations and tests	Differential Diagnosis
1	Urinalysis was normal	Excluding the Urinary Tract Infection
2	Post-void residual urine volume was within normal	Excluding Overflow Incontinence
3	Fasting blood sugar (99 mg/dL), postprandial (102 mg/dL) and HbA1c (5%) values were within normal limits	Ruling out diabetes-related neurogenic bladder involvement (Excluding Urge Incontinence)
4	Neurological and pelvic examinations revealed no abnormalities	Excluding Neurogenic Bladder
5	Cough stress test was positive	Stress Urinary Incontinence (SUI) is diagnosed

Table 2: Therapeutic intervention

Date	Internal Medicines	Dosage	Siddhar Yogam [12, 23]
15 th September 2024	Arakku Thailam [27]	Oil bath	[1] Utkatasanam
16 th September 2024	Agasthiyar kuzhambu [27]	200mg with warm water and ginger juice at early morning	[2] Virabhasanam
17 th September 2024 to 18 th December 2024	Paal Karudakkal Parpam [26]	200mg twice a day with Thanneervittan Nei (5ml)	[3] Sethu bandhaasanam Thirigonasanam
	Thaneervittan Nei [26]	5ml twice a day with Milk	[4] Malasanam
	Moolakudori Thailam [21]	10ml at night with warm water	[5] Sudha baddha konasanam

Table 3: Thaneervittan nei

Thaneervittan Nei [26]		
Ingredients	[1]	Thaneervittan Kizhangu juice (<i>Asparagus racemosus</i>)
	[2]	Ghee
	[3]	Cow's milk
	[4]	Thaneervittan Kizhangu (<i>Asparagus racemosus</i>)
Indications	[5]	Urinary tract diseases
	[6]	Neurological diseases
	[7]	Helps in body nourishments
Dosage	[8]	5ml bid with milk
Action	[9]	It has a potential in correcting the temperament of <i>Vatham</i> (Movemental energy), also nourishes the <i>Saaram</i> (plasma) and enhances the neuromuscular tone.
	[10]	This action contributes to reduced involuntary urine leakage by strengthening pelvic nerves and muscle coordination.

Table 4: Paal Karudakkal Parpam

Paal Karudakkal Parpam [26]		
Ingredients	[1]	Paal karudakkal (<i>Magnesite</i>)
	[2]	Thamarai ilia juice (<i>Nilumbo nucifera</i>)
	[3]	Thamarai ilia paste (<i>Nilumbo nucifera</i>)
Indications	[4]	Urinary disturbances and weakness of the Uro-genital tract.
	[5]	It also helps in the nourishment of <i>Thathus</i> (Body Constituents).
Dosage	[6]	200mg bid with Thaneervittan Nei
Action	□□□	It stabilizes Pitham, supports <i>Udal Kattugal</i> (7 Body constituents particularly <i>Saaram</i> (Plasma) and <i>Oon</i> (muscle tissue) and through its astringent properties, aids in controlling bladder instability and toning pelvic tissues.

Table 5: Assessment

Scoring	Before Treatment (Baseline)	After Treatment (90 th Day)
Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF) score	20	10
Incontinence Severity Index (ISI) score	Very severe	Moderate
Incontinence Impact Questionnaire (IIQ) score	Moderate	Slight

Discussion:

Stress Urinary Incontinence (SUI) is a multifactorial condition primarily associated with pelvic floor muscle weakness, urethral sphincter insufficiency and neuromuscular dysfunction, leading to involuntary urine leakage during activities that increase intra-abdominal pressure [1]. The present case showed clinically meaningful improvement following a 3 months integrative regimen combining Siddha internal medicines with Siddhar Yogam therapy, as evidenced by reduction in symptom severity and improvement in quality-of-life scores, aligning with evidence that conservative and neuromuscular interventions

play a central role in Stress Urinary Incontinence (SUI) management [9]. From a Siddha perspective, Stress Urinary Incontinence (SUI) correlates with ‘*Sottu Neer*’, a condition described in classical texts and attributed predominantly to *Vatham* (Energy of movement) derangement, particularly vitiation of *Abanan*, which governs downward physiological functions including micturition, defecation and menstrual flow [11]. Disturbance of *Abanan* (Downward movement energy) leads to impaired neuromuscular coordination and loss of sphincter control, conceptually paralleling modern descriptions of pelvic floor dysfunction and urethral incompetence [2].

Thaneervittan Nei (*Asparagus racemosus*) illustrated in **Table 3**, a ghee-based polyherbal formulation, is traditionally indicated for urinary tract disorders, neurological weakness and *Vatham* (Energy of movement) related conditions in Siddha literature [16]. Ghee-based formulations are known to enhance bioavailability of herbal constituents and exert neuroprotective, anti-inflammatory and tissue-nourishing effects, which may contribute to improved neuromuscular tone and pelvic nerve function relevant to continence mechanisms [17]. *Paal Karudakkal Parpam* (Magnesite) described in **Table 4**, a classical mineral preparation, is prescribed in Siddha practice for *Vatham* (Energy of movement) - *Pitham* (Thermal and Metabolic energy) disorders involving urinary weakness and tissue depletion [18]. Mineral-based formulations have been reported to exhibit astringent, stabilizing and tissue-strengthening properties, which may enhance urethral support and bladder neck stability, thereby reducing involuntary urine leakage [19]. The nourishment of 7 *Udal Kattugal* (7 Body Constituents) described in Siddha corresponds to restoration of muscle and connective tissue integrity recognized in contemporary pelvic floor rehabilitation concepts [20]. *Moolakudori Thailam* (*Terminalia chebula*) mentioned in **Table 2** is traditionally indicated for *Vatham* (Energy of movement)-related abdominal, urogenital and rectal disorders and is believed to alleviate muscular laxity and neuromuscular imbalance [21]. External or internal oil-based therapies have been shown to improve muscle flexibility, circulation and neuromuscular coordination, which may indirectly support sphincter function and pelvic stability in urinary incontinence [22]. *Siddhar Yogam* therapy played a crucial adjunctive role in this case by targeting pelvic floor strength, coordination and proprioception through postures such as *Utkatasanam*, *Virabhadrasanam*, *Setu Bandhasanam*, *Trikonasanam*, *Malasanam* and *Baddha Konasanam* outlined in **Table 2**. *Siddhar Yogam* based pelvic floor training has been shown to significantly reduce urinary incontinence severity by improving voluntary sphincter control and neuromuscular integration [12]. Randomized and pilot studies have demonstrated that *Siddhar Yogam* is comparable to conventional pelvic floor muscle training in improving Stress Urinary Incontinence (SUI) symptoms and quality of life [23]. The synergistic integration of Siddha internal medicines and *Siddhar Yogam* offers a dual mechanism of action internal correction of humoral imbalance and tissue nourishment, along with external functional retraining and muscle reactivation [24]. This holistic approach addresses both the root cause and functional manifestation of Stress Urinary Incontinence (SUI), which may explain the sustained improvement observed in symptom severity and quality-of-life scores without adverse effects [25]. This case gains importance in the context of growing interest in integrative medicine, particularly for chronic, non-life-threatening but quality-of-life-limiting conditions such as Stress Urinary Incontinence (SUI). The use of validated outcome measures strengthens the scientific credibility of traditional interventions and highlights the need for larger, controlled clinical trials to establish efficacy, safety and standardization of

Siddhar Yogam protocols in the management of Stress Urinary Incontinence.

Conclusion:

Combined Siddha medicines and along with *Siddhar Yogam* approach effectively corrected *Mukkuttram* (Vitiated three Humors) imbalance and strengthened the pelvic floor muscles. It was assessed through the improvement of ICIQ-UI SF score, ISI score and IIQ score illustrating a holistic and sustainable strategy for managing Stress Urinary Incontinence (SUI) in women.

Informed consent:

Informed consent was obtained from the patient to publish the report.

Abbreviations:

B.I.D: Twice a day
GM: Grams
MG: Milligrams
ML: Millilitre
SUI: Stress Urinary Incontinence
ICIQ-UI SF: Incontinence Questionnaire-Urinary Incontinence Short Form score
ISI: Incontinence Severity Index
IIQ: Incontinence Impact Questionnaire score
LSCS: Lower Segment Caesarean Section

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