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A case report on the Siddha management of chronic diverticulosis in an elderly Indian patient

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Abstract:

A 78-year-old male with a long-standing history of constipation-predominant diverticulitis and recurrent lower gastrointestinal bleeding presented with persistent abdominal pain, bloating, indigestion and mild rectal bleeding despite continuous conventional treatment. The condition was interpreted as chronic diverticulosis based on Siddha diagnostic principle. The patient showed progressive symptom relief with post-treatment ultrasonography revealing no acute abnormalities following sustained Siddha management. The Diverticulitis Quality of Life (DV-QOL) score improved markedly from 3.8 to 0.14 over one year, indicating significant enhancement in quality of life.

Keywords: Siddha management, chronic diverticulitis**Background:**

Chronic diverticulitis is a recurrent inflammation of diverticula in the colon arising from diverticulosis, which is usually asymptomatic until inflammation or infection occurs. Its etiology is unclear, but risk factors include smoking, obesity, low-fiber diet and NSAID use [1]. Patients typically present with left lower abdominal pain, altered bowel habits and may develop complications such as abscess, perforation, obstruction and peritonitis in severe cases [1]. The prevalence of diverticulosis varies across regions and ethnic groups and is considered relatively low in Asian populations, including India [2]. It increases with age, ranging from approximately 5% at 40 years to nearly 65% by 80 years [2, 3]. In Western populations, a similar age-related rise is observed, although only a small proportion (around 5%) of individuals with diverticulosis develop diverticulitis [2, 3]. Diverticular disease also imposes a significant economic burden on healthcare systems; for instance, it accounts for a notable proportion of surgical expenditure in the United Kingdom and substantial hospitalization costs in the United States [4, 5]. Despite available treatment modalities such as antibiotics and surgical interventions, patients often experience recurrent symptoms, reduced quality of life and increased morbidity and mortality compared to healthy individuals [5, 6]. In the Siddha system of medicine, intestinal disorders are described under terms such as *Kuṭal vali*, *Kuṭarcūlai* and *Kuṭal Nōy*, which denote painful and inflammatory conditions of the intestines [7]. These conditions encompass diseases such as diverticulitis, appendicitis, enterocolitis and volvulus based on clinical presentation [7]. Other terms like *Kuṭal rōkam* and *Kuṭalaṭarci* are also used to describe various intestinal pathologies, including disorders of the large intestine and enteritis [8]. Therefore, it is of interest to report chronic diverticulitis and highlight the clinical response to Siddha management.

Patient information:

A 78-year-old male, retired Superintendent from the Department of Agriculture, Government of Tamil Nadu, presented to the Siddha Regional Research Institute (SRRI) OPD with a chronic

history of constipation-predominant diverticulitis. He had been diagnosed with multiple colonic diverticula 15 years ago and had experienced recurrent acute flare-ups over the years, including mid-gut bleeding and a splenic artery aneurysm, resulting in multiple hospitalizations. Belonging to an upper-middle-class family, he had followed a sedentary lifestyle and consumed hotel-prepared, low-fiber foods during his working years. There was no known family history of diverticular disease and his children had not exhibited similar symptoms. His comorbid conditions included chronic sinusitis, internal hemorrhoids, hiatal hernia, esophagitis and benign prostatic hyperplasia (BPH) and hypertension. He had been managed conservatively with allopathic medications throughout, without any surgical interventions. Medical records indicated that a CT scan done in January 2010 showed hepatic cysts, a focal dilation of the splenic artery suggestive of an aneurysm and multiple colonic diverticula. In June 2010, he was hospitalized following bleeding per rectum and investigations confirmed multiple diverticula with internal haemorrhoids. In 2013, he experienced a recurrence of gastrointestinal bleeding and a celiac and mesenteric angiogram revealed colonic diverticulitis, prostatomegaly and hiatal hernia. A severe episode in 2015 required blood transfusion; colonoscopy findings included colonic diverticulitis, a large hiatal hernia and grade 1 haemorrhoids. In 2017, he was again hospitalized for gastrointestinal bleeding and a multiphasic CT scan revealed extensive diverticula involving the cecum, ascending, descending and sigmoid colon, along with the previously identified splenic artery aneurysm. In 2017, he was hospitalized once again following an episode of gastrointestinal bleeding. A multiphasic CT scan at that time revealed widespread diverticula involving the caecum, ascending, descending and sigmoid colon, along with the previously documented splenic artery aneurysm. Two years later, in 2019, he required ICU admission for a moderate lower gastrointestinal bleed, presenting with per rectal bleeding and was stabilized with intravenous fluids and antibiotics. Due to poor prognosis and persistent symptoms despite being on continuous allopathic

medication, the patient decided to seek Siddha treatment in 2021 for further management and holistic care.

Clinical findings:

The patient presented to the SRRI OPD in March 2021 with complaints of constipation, mild rectal bleeding and indigestion, intermittent pain in the left lower abdomen and with symptoms of gastroesophageal reflux disease (GERD). Based on his symptoms and medical history, he was enrolled under continuous Siddha management at the Geriatric OPD for regular monitoring and integrative care. A comprehensive clinical evaluation was performed using the Siddha eight-fold assessment (*Eṇvakait tērvu*), which includes examination of the tongue (*Naa*), body color (*Niram*), speech (*Moli*), eyes (*Viḷi*), pulse (*Naadi*), palpation (*Sparisam*), stool (*Malam*) and urine (*Muttiram*), along with vital signs are assessed and recorded.

Diagnostic assessment:

A multiphasic CT scan conducted in 2017 revealed extensive diverticula involving the cecum, ascending, descending and sigmoid colon, along with the previously identified splenic artery aneurysm. Siddha diagnostic evaluation using the eight-fold examination (*Eṇvakait tērvu*) showed pallor of the tongue, eyes and skin and a lustreless complexion upon palpation. The stool was found to be hard and constipated. Urine analysis through *Nirkkuri* (visual and physical examination) revealed dark yellow-colored urine, while *Neykkuri* (oil drop test) exhibited a spreading pattern indicative of *Aḷal Vali* derangement. Pulse examination (*Naadi*) also confirmed the predominance of *Aḷal Vali*. Based on the clinical presentation, radiological findings and an established diagnosis of chronic diverticulitis through conventional medical evaluation, the condition was interpreted in Siddha as chronic diverticulitis and management was initiated directly with a focus on correcting the underlying humoral (*mukkurram*) imbalance. Diverticular disease can substantially impair a patient's day-to-day well-being. To address this, the Diverticulitis Quality of Life (DV-QOL) scale was developed and validated as a disease-specific tool, allowing for a more accurate assessment of the symptom burden and functional limitations experienced by affected individuals. It consists of 17 items across four key domains: physical symptoms, concerns, feelings and behavioral changes. The DV-QOL captures a comprehensive range of experiences specific to diverticular disease, including psychological and social dimensions, which makes it highly relevant for evaluating the disease burden from the patient's perspective. In this patient it was employed to evaluate the patient's quality of life [9].

Therapeutic intervention:

Medication:

During the course of treatment, *Amukkarā Cūraṇam* (1 gm), *Tērrāṇkoṭṭai Lēkiyam* (5 gm), *Mātuḷai Maṇappāku* (5 ml), *Pāvaṇakaṭukkāy Māttirai* (1-2), *Caṅgu Parpam* (100-200gm) and *Kiḷānelli Māttirai* (1-2) were prescribed to be taken orally twice daily after food, along with honey, milk and warm water respectively. In addition, *Nilāvāgai Cūraṇam* (1-2gm), *Tiriphala*

Cūraṇam (1-2 gm), *Ēlathy Māttirai* (1-2), *Ōmattinīr* (5-10 ml), *Mūlakkuṭori Thylam* (5-10ml) and *Karunai Lēkiyam* (5gm) were administered intermittently, depending on the patient's presenting symptoms and clinical requirements.

Diet (*Pathiyam*):

The dietary recommendations during the treatment period primarily focused to reduce *Aḷal* and *Vali* humor. The prescribed regimen emphasized mainly *Cattuva kunam* diet like sprouts, green leafy vegetables, cow's milk, buttermilk and fibre-rich foods to prevent constipation. Conversely, the diet restricted are diet like sour-tasting foods, tubers, cold potency foods, foods inducing gastritis, junk foods, tea, coffee, spices *etc.* Due to his age and physique, the patient was not advised any physical exercises. Instead, simple breathing practices such as *prāṇāyāma* and the avoidance of mental stress were recommended to support systemic balance and enhance therapeutic outcomes [10].

Follow up and outcome:

Following the initiation of Siddha treatment, the patient began to experience gradual symptom relief. Initially, he continued to report constipation, abdominal bloating, pain, reduced appetite, impaired digestion and mild rectal bleeding. However, with consistent Siddha management, these symptoms progressively subsided. Each consultation involved a careful review of his prior allopathic medications to avoid any potential drug interactions and no adverse effects were observed during the course of integrated care. Since starting Siddha treatment, the patient has not had any major flare-ups or rectal bleeding episodes. Occasional mild symptoms such as constipation, bloating, or indigestion are well managed with Siddha formulations. Routine basic blood investigations were done yearly in the hospital itself to check for any adverse effects and toxicity. His condition remains stable under regular follow-up and he has not required hospitalization. Overall, the patient reports significant improvement in his quality of life and general well-being. Although abdominal ultrasonography is operator dependent, it remains a useful contrast- and radiation-free alternative, particularly favoured in European practice. Magnetic Resonance Imaging, while highly sensitive, is less specific than CT and is therefore not preferred in acute presentations [11]. In the present case of chronic diverticulosis, ultrasonography of the abdomen and pelvis was employed in the post-treatment and revealed an enlarged prostate with a post-void residual urine volume of 50 ml, a gall bladder polyp and a cyst in the right hepatic lobe suggestive of a degenerative cyst, however no features of colonic diverticulosis was seen. All basic blood investigations including CBC, LFT, RFT, lipid profile, Urine routine, blood sugar were also done which remained in normal limits. The chronological sequence of the patient's clinical history, investigations and other findings is summarized in **Table 1**. The DV-QOL score was utilized to assess the patient's quality of life, which was 3.8 before treatment, improved to 1.4 midway through treatment and further reduced to 0.14 after one year, indicating a marked reduction in symptoms (**Figure 1**).

Table 1: Timeline of clinical events and management

Date	Event / Investigation	Findings / Notes
January 2010	Initial diagnosis	Diagnosed with multiple colonic diverticula (diverticulosis)
	CT Abdomen	Hepatic cysts, focal dilation of splenic artery (suggestive of aneurysm), multiple colonic diverticula
June 2010	Hospitalization for rectal bleeding	Internal hemorrhoids and diverticula confirmed via colonoscopy
2013	Recurrent GI bleeding; Celiac and Mesenteric Angiogram	Findings: Diverticulitis, prostatomegaly, hiatal hernia
2015	Severe GI bleeding; Hospitalization was required Colonoscopy done	Colonic diverticulitis, large hiatal hernia, Grade 1 hemorrhoids; required blood transfusion
2017	Multiphasic CT Abdomen	Extensive diverticulosis (cecum, ascending, descending and sigmoid colon), splenic artery aneurysm
October 2019	Patient required ICU admission for a moderate lower gastrointestinal bleed, presenting with per rectal bleeding,	He was stabilized with intravenous fluids and antibiotics.
March 2021	First Siddha OPD Visit at SRRI	Complaints of constipation, bloating, indigestion, mild rectal bleeding; diagnosed as <i>Kuṭal Nōy</i>
2021- 2024	Regular Siddha management	Gradual symptom relief; no flare-ups or hospitalizations reported
2021 - 2024 (Annually)	Routine Blood Investigations	Conducted at SRRI OPD; No abnormal values were noted
2025	Ultrasound Abdomen & Pelvis (due to CT unaffordability)	Enlarged prostate with PVRU 50 ml, gallbladder polyp, degenerative liver cyst; no acute colonic issues

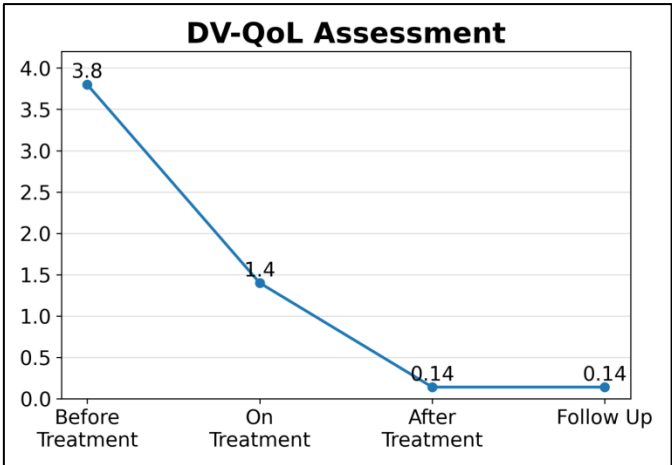


Figure 1: DV-QoL assessment

Discussion:

Diverticular disease, particularly chronic diverticulitis, poses challenges in long-term management due to its recurrent nature, variable symptomatology and risk of complications. While acute episodes are typically managed with antibiotics or surgical interventions, chronic forms characterized by persistent low-grade inflammation and altered bowel habits often diminish quality of life [12]. In this context, the Siddha system of medicine, with its constitution-based and holistic approach, may provide complementary benefits through long-term disease modulation. From a pathophysiological perspective, chronic diverticulitis is linked to aging, low-fiber diet, altered colonic motility, colonic microbiota, genetic factors, changes in colonic structure and mucosal inflammation [14]. In this case, longstanding low fiber intake, sedentary habits and recurrent gastrointestinal bleeding contributed to sustained mucosal compromise and impaired colonic motility. Despite years of conventional care, symptoms persisted, underscoring the limitations of standard therapy in halting progression and restoring bowel function. Siddha medicine interprets chronic diverticulosis within the broader framework of chronic diverticulosis, where disruptions in the *Mukkuṭram* particularly

Vali and *Aḷal* play a central role. The chronic constipation and disrupted bowel movements observed in this case correspond to *Vali* derangement, particularly involving *Apāna Vāyu* and *Samāna Vāyu*, which govern evacuation and digestion respectively. The progression to inflammatory features such as bleeding, mucosal irritation and indigestion are understood as manifestations of *Aḷal* aggravation, leading to excessive internal heat. Prolonged disturbance of *Vali* and *Aḷal* subsequently affects *Aiyam (Kapam)* and results in loss of mucosal integrity and stability of the gastrointestinal lining, aggravating symptoms and predisposing to complications. In this treatment strategy, Siddha medicines were employed to enhance bowel motility, modulate the gut microbiome, attenuate mucosal inflammation and reinforce epithelial integrity addressing key symptoms such as constipation, diarrhea, bloating, nausea altered bowel habits [13, 14]. These synergistic effects align with the Siddha principle that gastrointestinal harmony underpins systemic health and resilience against recurrence. *Chundai Vatrāl Chooranam (CVC)* was one of the main medicines used in this case. Traditionally recognized for its anti-inflammatory and analgesic properties, CVC also confers antioxidant, antimicrobial, hepatoprotective, nephroprotective, cardio protective and hypolipidemic benefits actions highly relevant in diverticulitis where chronic inflammation, oxidative stress and systemic comorbidities converge [15]. A key component of CVC, *Solanum torvum*, further contributes anti-inflammatory, antioxidant, analgesic and anti-ulcerogenic effects directly supporting intestinal healing by reducing mucosal inflammation and oxidative injury [16]. A systematic review by Lahner *et al.*, analyzing 11 studies with 764 patients, reported a positive trend in symptom reduction with probiotic therapy, predominantly using *Lactobacillus* strains [17]. The findings indicated a positive trend, suggesting that probiotic therapy may contribute to the reduction or remission of abdominal symptoms in affected patients [18]. Other formulations were also employed in the management of bowel homeostasis. *Thiriphala Cūṛanam* was administered during the treatment period considering its mild laxative action and broader therapeutic relevance in diverticulosis. In Siddha literature, it is valued for regulating bowel function and

correcting derangements in *vātham* and *pitham*, which are often implicated in intestinal disorders. Contemporary pharmacological evidence substantiates these traditional claims, demonstrating antioxidant, anti-inflammatory, immunomodulatory and gut microbiome-modulating effects that collectively support its role in the management of chronic diverticular disease. Its polyphenolic constituents encourage the proliferation of beneficial gut flora such as *Bifidobacteria* and *Lactobacillus*, while suppressing pathogenic bacteria, thereby promoting gut homeostasis [19]. To manage abdominal discomfort and indigestion, *Ômattinîr* (distilled water prepared from *Omam* or *Ajwain*) was administered. Known for its stomachic, antispasmodic, carminative and anthelmintic properties in Siddha, it was effective in relieving colicky pain and diarrhoea associated with digestive disturbances [20, 21]. Similarly, *Cômpu tinîr*, prepared from *Sombu* (fennel seeds), was included for its anti-inflammatory action, further aiding the reduction of bowel inflammation [21]. *Karunai Lēkiyam* and *Tērrāṅkottai Lēkiyam*, traditional Siddha polyherbal preparations [22], were prescribed to alleviate constipation, perianal discomfort often associated with diverticulitis. These formulations are well-regarded for their role in regulating bowel movements and promoting mucosal repair in anorectal conditions [23]. One of the key constituents of *Pāvaṇakaṭukkāy Māttirai* is *Terminalia chebula* Retz, often referred to as the 'King of Herbs.' Recent studies highlight its ability to modulate gut microbiota, thereby exerting prebiotic effects that contribute to overall health. Since the gut microbiome is increasingly recognized as a therapeutic target for a range of disorders, the role of *Pāvaṇakaṭukkāy Māttirai* in appetite stimulation and digestive regulation is of particular relevance. Additionally, other clinical observations suggest that it may help mitigate gastrointestinal manifestations such as nausea, vomiting, diarrhoea, stomatitis, constipation and hyperacidity. Evidence from Siddha literature also indicates its potential to support haematological parameters by maintaining haemoglobin levels, stabilizing white blood cell and platelet counts and promoting detoxification processes [24, 25]. *Mūlakkuṭori Tailam*, containing unripe fruits of *Terminalia chebula* as its main ingredient, was also used in the management of constipation. Supporting this traditional application, another study showed that oral administration of *Terminalia extract* (100 mg/kg/day for 15 days) produced a significant improvement in gastric emptying compared to the control group ($p < 0.01$). Its effect was comparable to the prokinetic drug Metoclopramide, indicating notable prokinetic activity [26]. The patient frequently experienced rectal bleeding, which led to anemia. To counteract this, *Māṭṭulai Maṇappāku*, a formulation prepared from pomegranate, was administered. Owing to its antioxidant and hematinic properties, it was considered beneficial in managing anemia associated with rectal bleeding [27, 28]. *Keelanelli Maṇirai*, formulated with *Phyllanthus niruri* as the key ingredient, was effectively used in treatment, where the hepatoprotective, anti-inflammatory and antioxidant activities of the plant may have contributed to reducing mucosal damage and systemic oxidative stress [29]. The use of DV-QOL aligns with modern healthcare's

emphasis on patient-centered care by measuring outcomes that matter most to patients, thus improving the understanding of disease impact and aiding in personalized treatment decisions. By including questions on physical symptoms, emotional concerns, psychological feelings and behavioral changes, DV-QOL captures the multidimensional impact of diverticular disease, providing a holistic view of patient well-being [30, 31]. Dietary modification complemented pharmacological measures, emphasizing elimination of aggravating foods and inclusion of fiber-rich, gut-friendly items aligned with *Cattuva Guṇam*. Clinically, the patient experienced sustained symptomatic relief, with marked reduction in constipation, bloating and rectal bleeding. Importantly, no acute flare-ups or hospitalizations occurred during Siddha management, despite the chronicity of disease. The absence of adverse effects or interactions with ongoing allopathic medications further supports the safety and feasibility of integrative care when carefully monitored.

Informed consent:

Written informed consent was obtained from the patient for the publication of this case report and any accompanying images. The patient reviewed the submitted version of the manuscript and confirmed the accuracy of its content.

Limitation:

This case report describes the successful Siddha management of a single patient with chronic diverticulitis, interpreted in the Siddha system as *Kuṭal Nōy*. However, there are certain limitations to consider. The findings are based on the experience of a single individual and therefore cannot be generalized to a wider population without further validation through larger, controlled studies. Additionally, while a post-treatment ultrasound (USG) of the abdomen and pelvis was performed, which showed no acute colonic abnormalities, a more definitive radiological evaluation such as a CT scan could not be conducted due to financial constraints. This limited the objective assessment of structural resolution of diverticular pathology. Despite these constraints, the case underscores the potential role of Siddha medicine in managing chronic gastrointestinal conditions and highlights the need for more robust integrative research.

Conclusion:

We show the potential role of Siddha medicine as a supportive or standalone approach in the long-term management of chronic gastrointestinal disorders. Although findings from a single case cannot be generalized, such observations provide valuable insight into traditional therapeutic practices and their relevance in chronic lifestyle-related conditions. This case emphasizes the need for well-designed clinical studies using modern research methodologies to systematically evaluate the efficacy and safety of Siddha interventions in gastrointestinal disease management and integrative healthcare.

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The authors declare no conflict of interest.

Author contribution:

Dr. B. Vinubharathi, Dr. R. Vinodini and Dr. P. Thenmozhi contributed to the concept and drafting of the manuscript. Dr. Shyamala Rajkumar and Dr. Sathiyarajeswaran provided critical inputs and assisted in refining the manuscript.

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