



PURGATION THERAPY IN BRONCHIAL ASTHMA (“TAMAKE TU VIRECHANAM”)-A CASE REPORT

Ramraj singh¹, Priyanka Dorage², Jayant Gulhane³

M.D. Kayachikitsa^{1&2}, HOD and Associate professor of Kayachikitsa Department³, Government Ayurved College and Hospital, Nagpur (Maharashtra)

Corresponding Author: ramrajsingh0625@gmail.com

<https://doi.org/10.46607/iamj1912102024>

(Published Online: October 2024)

Open Access

© International Ayurvedic Medical Journal, India 2024

Article Received: 08/09/2024 - Peer Reviewed: 29/09/2024 - Accepted for Publication: 13/10/2024.



ABSTRACT

With the highest frequency in developed nations, asthma is a widespread illness that is becoming more and more common worldwide. Approximately 300 million individuals globally have asthma, and by 2025, an additional 100 million are expected to be impacted by the condition. Ayurveda has been an outstanding source of Internal detoxification therapy and herbal medicine since prehistoric times. Patients seeking alternative and complementary medicine to treat their asthma are doing so since current asthma therapy is not working well enough owing to side effects. A 52-year-old male patient with a known case of recurrent bronchial asthma who is undergoing scheduled purgation therapy for the condition ("TAMAKE TU VIRECHANAM") has shown significant improvement with long-lasting benefits and fewer adverse effects.

Keywords: *Tamaka Swasa*, Bronchial Asthma, Virechan.

INTRODUCTION

Difficulty in breathing or shortness of breath may be termed Swasa Roga. It may be primary - originating from the respiratory system or secondary - originating from other body systems, but the impact is on the

respiratory system. Bronchial Asthma is a chronic inflammatory disease of the airway. It leads to recurrent episodes of wheezing, breathlessness, tightness of the chest, and cough, particularly at night or early

morning. As per Ayurveda, Swasa is mainly caused by the Vata and Kapha doshas. Swasa is broadly classified into five types: Mahaswasa (Dyspnoea major), Urdhwaswasa (Expiratory Dyspnoea), Chinna swasa (Chynestroke respiration), Kshudra swasa (Dyspnoea minor) and, Tamaka swasa (Bronchial Asthma).

Tamaka Swasa is one among the Pranavaha Srotho Vikara. It is a Swatantra Vyadhi (independent disease) with its etiological factors, pathophysiology and management. According to Charaka, it is considered Yapy Vyadhi (palliative disease), while Sushruta considers it Krichchra Sadhya Vyadhi (challenging to cure). Therefore, the proper line of treatment and an excellent lifestyle are necessary for a better quality of life. Currently, an attempt has been made to explore the efficacy of such formulations in reducing the signs and symptoms of Tamaka Swasa. A case of a 52-year-old male patient who presented with the symptoms of recurrent episodes of wheezing, breathlessness, tightness of the chest and cough, particularly at night or early morning Dyspnoea on exertion, chest discomfort, cough with whitish colour sputum and generalised weakness of Tamaka Swasa was treated by Ayurvedic Standardized purgation therapy along with anti-asthmatic herbal drug shows marked improvement was seen. After four weeks of follow-up, no episodes of the above complaints have been reported.

Case Report

52-year-old male patient who presented with the symptoms of recurrent episodes of dyspnoea on exertion, chest discomfort, cough with whitish colour sputum, particularly at night or early morning, wheezing, frequent respiratory infection, anxiety and generalised weakness along with loss of appetite and constipation since last two year came to our institute. History of jaundice and chikungunya 21 years ago, Right side hemiparesis before 22 years. The patient was admitted to GACH, Nagpur, for Urticaria 4 Years ago and for haemorrhoid nine years ago; the patient was admitted to Lata Mangeshkar Hospital, Nagpur, for Tympanoplasty. He was taking Shwasamrita and Syp. Crux whenever he gets the symptoms for more than two years. There is no histo-

ry of diabetes or hypertension. k/c/o bronchial Asthma for 18 years. By occupation, the patient works in plumbing and takes a vegetarian diet. His son has had bronchial asthma since birth. All other family members are said to be healthy.

He was normal 18 years back, but gradually he Felt chest discomfort, cough with whitish colour sputum, particularly at night or early morning, wheezing, and dyspnoea on exertion to an unbearable stage and that forced him to consult their family physician on an urgent basis. The physician had suggested he go for medication, which could give her a temporary relief of 3 months. Later on, the patient consulted a Pulmonary Medicine doctor, where the patient was diagnosed with "Bronchial Asthma" through X-ray, haematological and clinical examinations. The patient was on allopathic treatment for 17 Years and found symptomatic relief. Before the last three years, the patient took medication like Tab. Deriphyllin 100 mg 1OD and Tb. Dexamethasone 10 mg SOS. The patient did not get relief from repeated episodes of pain and inflammation, so he visited our institute for conservative management.

Clinical findings-

The patient was conscious, well-oriented, and spoke usually. Pallor, icterus, clubbing, and cyanosis were absent. All routine investigations were done, and an increased ESR level of 56 mm/1hr was achieved; the others were within normal limits.

Dashvidha Pariksha (~ tenfold examination) shows VataPitta Prakriti (~physical constitution) Vikruti – Prana, Udana, Apana Vata and Avalambaka Kapha, Madhyama Samhanana (~medium body constitution), Avara Sara (~lowermost purest body tissue), Avara Vyayam Shakti (~lowermost capability to carry on physical activities), Madhyama Abhyavara and Jaranashakti (~middlemost food intake and digestive power) Pramana – height -158 cm, weight-48 kg, BMI – 19.23 kg/m² Vaya – Madyama and Asthavidha Pariksha (~ eightfold examination) shows Nadi(~pulse) was Vatkaphaj, frequent Mal Vibandh (~ constipation) Mutra (~urine) was expected, Jivha (~tongue) was coated, Shabd (~speech) was clear and

low, *Sparsh* (~temperature) was average, *Drik* (~vision) was expected, *Aakriti* (~body built) was *Krishna* (~lean) BMI 19.23 kg/m². *Rasavaha, Raktavaha, Mansavaha, Medovaha, Asthivaha, Majjavaha, Annavaha, Pranavaha, and Purreeshvaha Srotodushti* was observed (Vitiation in micro-channels related to plasma, blood, muscular tissues, adipose tissue, and bones) in this patient. In a systematic respiratory system examination, chest inspection is bilaterally symmetrical. Accessory muscles used for respiration are present, i.e., sternocleidomastoid muscles. Type of breathing - ab-

dominal thoracic, No chest deformities, No scars. Respiratory rate: 22/min. On Palpation: Tenderness is absent, and the position of the trachea is centrally placed. Vocal fremitus - bilaterally symmetrical. In Percussion: Resonant all over the lung field. Hepatic and cardiac dullness were noted. Auscultation: wheeze is present in the right and left lung, middle and lower lobes. Vocal resonance is bilaterally symmetrical. CVS, nothing abnormal is detected.

TIMELINE:

2003	He started experiencing chest discomfort, cough with whitish colour sputum, particularly at night or early morning, wheezing, and dyspnoea on exertion to an unbearable stage, and that forced him to consult their family physician on an urgent basis.
2004	The patient consulted a Pulmonary Medicine doctor, who diagnosed the patient with “Bronchial Asthma” through X-ray and clinical examinations. The patient has been under allopathic management for the past 17 years.
October 2021	The patient did not get relief from repeated episodes, so he visited our institute in OPD and IPD for conservative management. He was admitted to the IPD of Govt. Ayurveda College, Nagpur, on 6 October 2021.
0-5 th Day	<i>Rukshan Pachana Kwatha</i> and <i>Gandarva Hartaki Churna</i> for 5 Days
6 th -12 th Day	<i>Sarvanga Snehana</i> and <i>Swedan</i> with <i>Til Tail</i> and <i>Snehapan</i> with <i>Vasa, Yastimadhu, Kantakari, Pippali, Gambhari, Shati, Tulsi Beeja, and Ela Siddha Ghrita</i> .
13-15 Day	<i>Virama Kala</i> and <i>Sarvanga Snehana</i> and <i>Swedan</i>
16 Day	<i>Virechan</i>
16-22 Day	<i>Sansarjan Krama</i> (after completion of <i>Sansarjan Krama</i> pt. discharged on 27/10/21)
22-52 Day	<i>Kapikachu Bheeja churn</i>

Diagnostic Focus and Assessment

Criteria of assessment

A detailed history and physical examination were done using both Ayurvedic and modern examination methods: *Agnibala, Dehabala, and Prakriti* were recorded. Adopting the scoring method, symptoms of the illness like breathlessness, cough, sputum, etc., and physical signs like respiratory rate, heart rate, and expansion of chest parameter reading were taken as assessment criteria in this study.

A. Subjective criteria: Presence of symptoms ^[1] of *Tamaka Shwasa*. The symptoms were based on textual references like *Pratiloma Vayu* (prolonged expiration), *Ghurghuraka* (wheeze), *Ativa Tivra Vegam Ca*

Shwasam Pranaprapidakam (dyspnea of exceedingly deep velocity, which was immensely dangerous to life), *Shlesmanyamucyamaane Tu Bhramam Bhavati Duhkhita* (as the phlegm does not come out, the patient became more restless), *Uddhvamsate Kantha* (choked throat), *Asino Labhate Saukhyam* (comfortable in orthopnea position), *Tasyaiva Ca Vimoksante Muhurtam Labhata Sukham* (patient found momentary relief after the expulsion of phlegm), *Shayanah Shwasapiditah* (patient had more dyspnea when lying down), *Ruksa Bhasana* (hoarseness of voice). Gradation: 0-No complaint, 1-Mild, 2-Moderate, 4-Severe.

B. Objective criteria: As objective criteria, the following investigations were carried out – (a) Blood: Total leucocytes count, differential leucocyte count,

haemoglobin percentage, Erythrocyte Sedimentation Rate (ESR), (b) Radiological examination: X-ray of the chest.

Therapeutic focus- Panchakarma Procedure

A. Poorva Karma

1. Rukshan Pachana Kwatha for 5 Days

S.No.	Niram Avastha Lakshana	D ₁	D ₂	D ₃	D ₄	D ₅
1.	Kshuta-Kshamta	-	-	-	✓	✓
2.	Gatra-Laghavta	-	-	-	-	✓
3.	Jwar-mardavam	-	-	-	✓	✓
4.	Mala-pravritti	-	-	✓	✓	✓
5.	Mutra-pravritti	-	✓	✓	✓	✓
6.	Sweda-pravritti	-	✓	✓	✓	✓

2. Samyak Snehapana Lakshana^[2]

S.No.	Samyak Snehapana Lakshana	D ₁	D ₂	D ₃	D ₄	D ₅	D ₆	D ₇
	Quantity of Sneha	30 ml	30 ml	45 ml	60 ml	75 ml	90 ml	105 ml
	Time of Intake in the AM	7:00	6:45	6:05	7:20	7:15	8:00	7:25
	Kshuta-Dipti time in PM	2:00	1:00	2:10	3:15	4:35	6:30	6:00
1.	Agnidipti	-	-	-	-	+	+	+
2.	Snehodvega	-	-	-	-	-	+	+
3.	Asamhata Varcha	-	-	-	-	-	+	+
4.	Anga Laghavta	-	-	-	-	-	-	+
5.	Gatra Mardav	-	-	-	-	+	+	+
6.	Purisha Snigdhat	-	-	-	-	-	-	+
7.	Twak Snigdhat	-	-	-	-	-	-	+
8.	Vatanulomana	-	-	-	-	+	+	+
9.	Glani	-	-	-	-	-	+	+
10.	Vimalendriyata	-	-	-	-	-	+	+

B. Pradhan Karma-Virechan^[3]

Virechan Drug	Virechan with Ikshabhedhi Rasa.
Virechanopaga Drug	Draksha Hima
Total Vega	33
Type of Shuddhi	Pravar

C. Pachat Karma- 7 Days Sansarjan krama i.e., Paya, Vailapi, Yusha and Manshrasa.

Table: Showing material used in the study

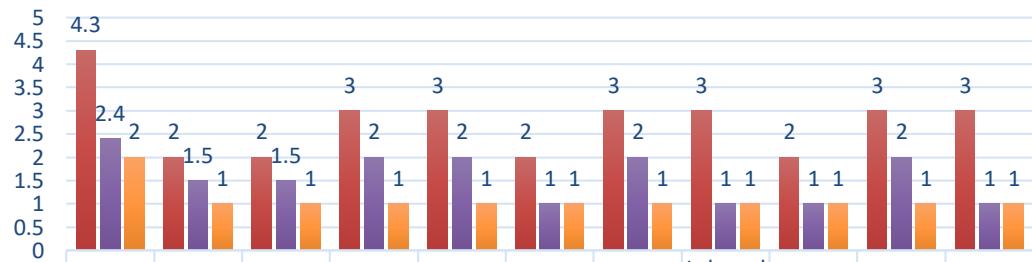
Shaman Aushadi	Dose	Kala	Anupana	Duration
Rukshan-Pachan Kwath	40 ml	Apana (Before Meal)	---	Five days
Gandarva Hartaki Churna	5 gm	Vyanudane (After Meal)	Koshnajala	Five days
Kapikachu Bheej Churna	5 mg	Rasyana Kala	Honey and Goghrita	30 days

FOLLOW-UP AND OUTCOMES

Bronchial Asthma Criteria^[4]

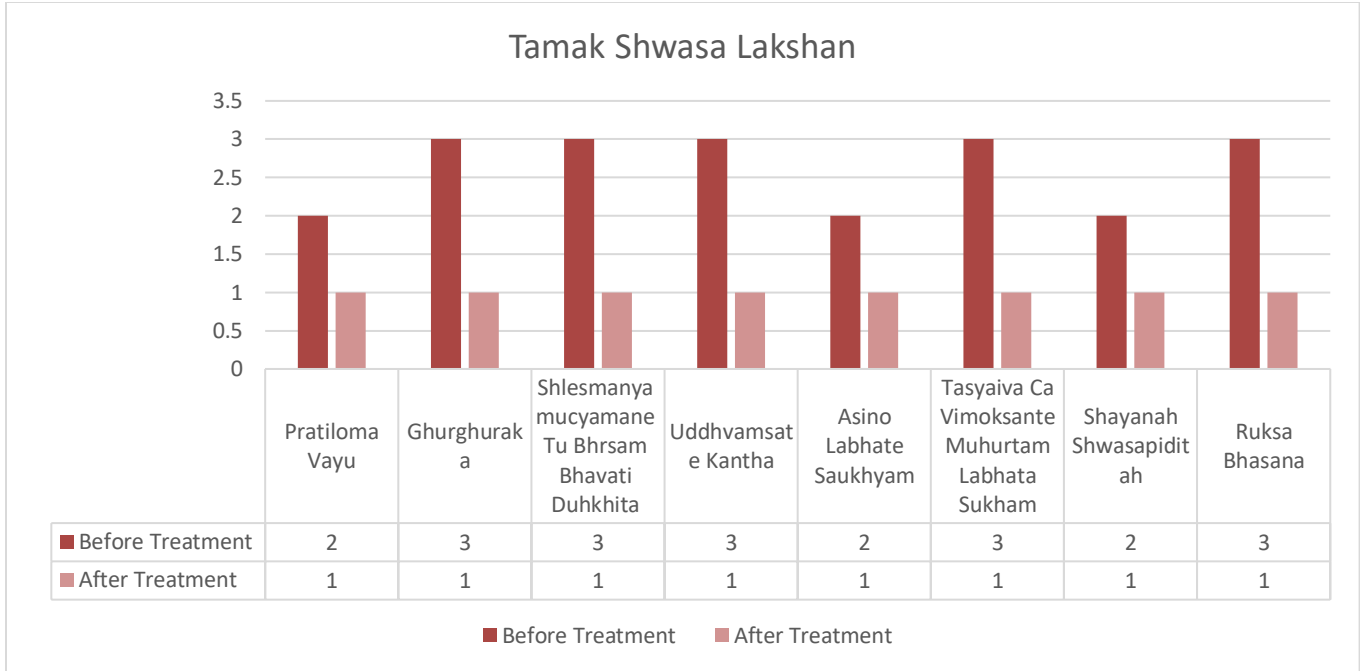
Bronchial Asthma Criteria	Before <i>Rukshan Pachan</i>	After <i>Virechan</i>	After <i>Shaman Drug</i>
PEFR	180 lit./min.	200 lit./min.	240 lit./min.
SMI	2 second	3 second	4 second
Inspiration Time	7 second	3.5 second	3.2 second
Expiration Time	2.5 second	2 second	2.41 second
R.R.	22/min.	19/min.	18/min.
Breath Holding Time	5 second	7 second	9.26 second
Expansion of Chest	78 cm	80 cm	82 cm
Heart Rate	76/min.	80/min.	74/min.
Breath sounds	Severe - loud inspiration and expiratory wheezes	Mild - moderate wheezing at mid-to-end expiration.	Mild - moderate wheezing at mid-to-end expiration.
Cough	Continuous day morning and night cough - disturbs activity	Continuous cough during the day and morning - disturbing work	Morning bouts or after exercise - do not disturb work
Sputum	15 to 25 ml/day	2.5 ml to 1.5 ml/day	Less than 2.5 ml/day
Speech	Moderate - phrases	Mild - sentences	Mild - sentences
Breathlessness	Moderate - with talking	Mild - breathlessness with activity	Mild - breathlessness with activity

Bronchial Asthma Criteria



	Severity	Breathlessness	Cough	Speech	Sputum	Body Position	R.R.	Labored Breathing	H.R.	Mental Status	Breath Sounds
Before Rukshan Pachan	4.3	2	2	3	3	2	3	3	2	3	3
After Virechan	2.4	1.5	1.5	2	2	1	2	1	1	2	1
After Shaman Drugs	2	1	1	1	1	1	1	1	1	1	1

■ Before Rukshan Pachan ■ After Virechan ■ After Shaman Drugs



DISCUSSION

Asthma is a complex inflammatory disease that causes airway narrowing and is associated with changes in the levels of eosinophils, mast cells, lymphocytes, cytokines and other inflammatory cell products. It is well known that patients with asthma have high levels of specific IgE that bind to receptors of mast cells and other inflammatory cells. Interaction between IgE antibody and antigen results in the activation of a series of inflammatory cellular reactions, including the release of mediators such as histamines, prostaglandins and leukotrienes, which subsequently lead to contraction of airway smooth muscle and bronchoconstriction^{[5]-[7]}.

Firstly, give *Deepan Pachan Chikitisa* for an initial seven days. Because the patient has *Mandagani* (suboptimum digestive power) and *Sama* state, oral

Ayurveda medicine was given before Panchakarma to digest the *Ama* (~undigested food that vitiated the Doshas). *Rukshan Pachan Kwatha*^[8] contains *Triphala*, *Guduchi*, *Musta*, and *Vidanga* and has *Deepan* and *Pachan* properties. *Gandharva Haritaki* is *Anulomaka* and hence helps in *Sampraptibhanga*.^[9]

Snehapan

Vasa, *Yastimadhu*, *Kantakari*, *Pippali*, *Gambhari*, *Shati*, *Tulsi Beeja*, and *Ela Siddha Ghrit* are used for *Shodhan Snehapan*.

Dosha is present throughout the body. By its *Sukshma Guna* and *Kledana karma*, *Sneha* brings the Dosha to *Koshtha* from *Shakhas*. *Sneha's Kledana* (moistness or wetness) karma acts as a solvent for the morbid Doshas, eliminating the fat-soluble impurities in the body.

S.no.	Content	Latin Name	Karma
1.	<i>Vasa</i>	<i>Justicia adhatoda</i>	Shwasa-Kasa har, Rakatapitta shamak
2.	<i>Yastimadhu</i>	<i>Glycyrrhiza glabra</i>	Swara Vardhaka, Vata-pitta Nashak
3.	<i>Kantakari</i>	<i>Solanum virginianum</i>	Shwasa-Kasa har, Kapha Nashak
4.	<i>Pippali</i>	<i>Piper longum</i>	Shwasa-Kasa har, Kapha Nashak
5.	<i>Gambhari</i>	<i>Gmelina arborea</i>	Rasayan
6.	<i>Shati</i>	<i>Hedychium spicatum</i>	Shwasa-Kasa har, Kapha Nashak
7.	<i>Tulsi Beeja</i>	<i>Ocimum sanctum</i>	Shwasa-Kasa har, Kapha Nashak
8.	<i>Ela</i>	<i>Elettaria cardamomum</i>	Shwasa-Kasa har, Kapha Nashak

Virechana

In Tamaka Svasa, Charaka counselled Samshodhana and focused more on Virechana Karma to balance the unbalanced Doshas (Vata and Kapha). Furthermore, for an asthmatic patient, substances that reduce Vata and Kapha (Kapha-Vatagnam), Ushna Virya (hot in potency), and produce a downward movement of Vata (Vatanulomanam) are beneficial as medicines (Bhesaja), Pana (drinks), and Anna (meal).^[10]

Ikshabhedhi Rasa was used for *Virechana* as. Generally, *Ruksha Virechana Yoga* is *Tikshan* in nature. It is a *Sukha Virechaka* drug and acts as *Pitta Shamaka* and *Vatanulomaka*. *Virechana Dravya* acts either by a bulk effect or by irritant or stimulant action on the intestinal wall, excites Auerbach's plexus, and causes increased peristalsis. The mucosa of the intestinal tract becomes extensively irritated, and its secretion rate is greatly enhanced. In addition, the mobility of the intestinal wall usually increases many folds. As a result, large quantities of fluid are made available for washing these irritating agents, and at the same time, strong propulsive movements propel this fluid forward.

Concept of Virechana in Tamak Shwasa

1. The site of origin of shwas roga is "Pitta Sthana Samudbhava." And this pitta sthana is described by Chakrapani as Adho Amashya. This is the region between the hridaya and nabhi. The primary pathology of shwasa roga occurs here, and the predominant dosha pitta is present here. And to purify the site of origin, virechana is advocated^[11].
2. The patient of tamaka shwasa is often weak and in the chronic stage, hridya as the mula of pranavaha shrotas^[12] is also involved. In this condition, vamana is a very difficult and complicated procedure & the virechana is quickly done without threatening the life of the patient.
3. Accumulation of Mala and Vayu in Udara leads to Apana vayu vitiation, which is followed by vitiation of Prana Vayu, leading to Shvasa. In patients of Tamaka Shvasa, an Apana vaya vitiation-like condition is often seen. Anuloman^[13] (

Type of Virechana) is expected to relieve this condition; thus, therapy is more helpful in treating Shvasa.

4. If Tamakashvasa presents due to Saama Vayu, it leads to inflammation. In modern view, Asthma is considered a chronic inflammatory condition of the airways. In the sign of Virechana, Shotha^[14] is one of the diseases, as Shotha results from obstruction in the natural path of Vayu. Virechana overcomes this obstruction and reduces the inflammatory condition.
5. Udakavaha Srotasa is involved in the pathogenesis of Shvasa^[15]. In a deranged state, it results in excessive Kleda formation. Kleda has Apa Mahabhuta dominancy, particularly in Kaphapradhana samprapti. The vitiated status of Kleda is observed. Excessive secretions in the lungs are present at this stage. The word Virechana is formed from „rech“ Dhatu meant for secretion. Virechana removes this Kleda. Thus, it reduces the severity of Shvasa.
6. Shvasa Vyadhi is mentioned as Aamashaya samutha^[16], where the derangement of Agni leads to Agnimandya. In this case, Virechana will be helpful by maintaining the proper status of Agni, which is the root cause of almost many diseases.
7. Embryological development of Phupphusa occurs from Shonitaphena^[17] i.e. main source is Shonita. In the case of Shvasa, Vyaktisthana is Urah, where Phupphusa is situated. Hence, Khavaigunya mainly occurs here; hence, Virechana, the best treatment for the purification of Rakta, may be useful for clearing the Khavaigunya in Phupphusa.
8. Pratilom gati of vaya in pranavaha channel result in tamak swasa^[18]. In this case, Anuloman is best by Virechana.

Kapikachu Bheeja Churna (*Mucuna pruriens*)

The L-DOPA isolated from the methanol extract of the seed possesses antihistaminic activity by inhibiting clonidine-induced catalepsy and mast cell degranulation in mice at doses 50, 100 and 200 mg/kg^[19]. As a result, it shows anti-inflammatory and

antihistaminic properties, so it acts as an anti-asthmatic drug in patients.^[20]

CONCLUSION

Breathing becomes difficult due to inflammation of the narrow and enlarged air channel caused by bronchial asthma. According to Ayurveda, Virechana is the optimum course of treatment for Tamaka swasa. In the case in point above, the patient feels better and experiences significant symptom relief after receiving Virechana.

REFERENCES

1. Shastri K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Chikitsa Sthana*. 2nd ed. Ch. 17., Ver. 55-62. Varanasi: Chaukhamba Bharati Academy; 2016. p. 516.
2. Shastri P.K. and Chaturvedi G.N., Charak Samhita, Vidhyotini Hindi Commentary, Vol-1, Sutrasthana Adhyaya 13, Chaukhamba Bharati Sansthan, Varanasi Reprint 2016, ed, Ver. 58, Page no. 271.
3. Shastri K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Chikitsa Sthana*. 2nd ed. Ch. 17., Ver. 121. Varanasi: Chaukhamba Bharati Academy; 2016. p. 525.
4. Ukena D, Fishman L, Niebling WB. Bronchial asthma: diagnosis and long-term treatment in adults. *Dtsch Arztebl Int*. 2008 May;105(21):385-94. doi: 10.3238/arztebl.2008.0385. Epub 2008 May 23. PMID: 19626179; PMCID: PMC2696883.
5. Holgate ST, Polosa R. Treatment strategies for allergy and asthma. *Nat Rev Immunol*. 2008; 8:218-230. [[PubMed](#)] [[Google Scholar](#)]
6. Donno DM, Bittesnich D, Chetta A, Olivieri D, Lopez-Vidriero MT. The effect of inflammation on mucociliary clearance in asthma. *Chest*. 2000;118(4):1142-1149. [[PubMed](#)] [[Google Scholar](#)]
7. Tattersfield AE, Knox AJ, Britton JR, Hall IP. Asthma. *Lancet*. 2002;360:1313-1322. [[PubMed](#)] [[Google Scholar](#)]
8. Shastri P.K. and Chaturvedi G.N., Charak Samhita, Vidhyotini Hindi Commentry, Vol-1, Sutrasthana Adhyaya 21, Chaukhamba Bharati Sansthan, Varanasi Reprint 2016, ed, Shloka, 21/2-232, Page no. 415.
9. Shah N.C. Bharat Bhaishayajya Ratnakar. 1st Edition, Vol – I, New Delhi: B. Jain Publishers; 2005.
10. Ghosh KA, Tripathi PC. Clinical effect of Virechana and Shamana Chikitsa in Tamaka Shwasa (Bronchial Asthma). *Ayu*. 2012 Apr;33(2):238-42. doi: 10.4103/0974-8520.105244. PMID: 23559796; PMCID: PMC3611644.
11. Acharya YT, editor. 8. Vol. 17. Varanasi: Chaukhamba Sanskrit Sansthan; 2004. Agnivesha, Charaka, Dridabala, Charaka samhita, Chikitsa Sthana, Hikkashwasa Chikitsa Adhyaya; p. 533. [[Google Scholar](#)]
12. Tripathi B., Charak Samhita, Chikitsa Sthana, Chaukhamba Orientalia, Varanasi, ed, Shloka, 8/17,2018,615
13. Tripathi B., Charak Samhita, Chikitsa Sthana, Chaukhamba Orientalia, Varanasi, ed, Shloka, 291/28,2018,977
14. Tripathi B., Charak Samhita, Siddhi Sthana, Chaukhamba Orientalia, Varanasi, ed, Shloka, 13/02,2018,1181
15. Tripathi B., Charak Samhita, Chikitsa Sthana, Chaukhamba Orientalia, Varanasi, ed, Shloka, 21/17,2018,617
16. Tripathi B., Astanga Hrdayam, Nidan Sthana, Chaukhamba Orientalia, Varanasi, ed, Shloka, 04/4,2017,454
17. Shastri K.A., Shsruta Samhita, Sharir Sthana, Chaukhamba Orientalia, Varanasi, ed, Shloka, 25/04,2016,41
18. Tripathi B., Charak Samhita, Chikitsa Sthana, Chaukhamba Orientalia, Varanasi, ed, Shloka, 55/17,2018,623
19. Pathan AA, Kasture SB, Mahalaxmi M. Residue of *Mucuna pruriens* potentiates haloperidol and clonidine-induced catalepsy in mice. *Pharmacologyonline*. 2009;3:652-658. [[Google Scholar](#)]
20. Taur DJ, Patil RY. Some medicinal plants with anti-asthmatic potential: a current status. *Asian Pac J Trop Biomed*. 2011 Oct;1(5):413-8. doi: 10.1016/S2221-1691(11)60091-9. PMID: 23569804; PMCID: PMC3614196.

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Ramraj singh et al: Purgation Therapy in Bronchial Asthma ("TAMAKE TU VIRECHANAM")-A Case Report. *International Ayurvedic Medical Journal* {online} 2024 {cited October 2024} Available from: http://www.iamj.in/posts/images/upload/1917_1924.pdf