

Case Report

## Arkapatri (*Tylophora asthmatica* (Burm. F.) Merrill) in Tamaka Shwasa as a Vamaka Dravya: A Case Study

Kavyashree M.R<sup>1</sup>, HegdePrakash L<sup>2</sup>, Harini A<sup>3</sup>

<sup>1</sup>Post Graduate Scholar, <sup>2</sup>Professor, <sup>3</sup>Associate Professor, Department of Dravyaguna, Sri DharmasthalaManjunatheswara College of Ayurveda and Hospital, Hassan, Karnataka, India.

Corresponding Author: Kavyashree M.R

### ABSTRACT

*Shwasaroga* (Asthma) is a *Pranavaha sroto dustivikara* (Respiratory system disorder) which is one among the chronic conditions that affect the quality of life of the patient. On basis of its sign and symptoms, *Shwasaroga* can be correlated with Asthma. *Tamaka shwasa* is one among the *Shwasaroga* and it is predominantly *Vatakaphajavyadhi*. *Tylophora asthmatica* is commonly called 'Anantmul' and one among the asthmatic plant and though it is having *Vamanakaraka prabhava*. It is useful to remove *Kaphadosha*, hence *Arkapatri* act as *Shwasahara*. *Charaka* has advised *Vamana karma* (Emetic therapy) is the choice of treatment for the *Kapha*, predominant disorder. Hence, in this study a case of *Tamaka shwasa* was treated by *Vamana karma* with *Arkapatri* for a period of 03 days. This case study shows single drug administration of *Arkapatri* proved to effective in *Tamaka shwasa*.

**Keywords:** *Arkapatri, Tylophora asthmatica, Vamaka, Tamaka shwasa*

### INTRODUCTION

The word *Shwasa* is defined as "Shwasitianenaiti Shvasa" which means respiration. This derivation says about the physiological aspect of breathing. But rapid or interrupted breathing is called *Shwasaroga* and it is one of the *Pranavaha sroto dusti vikara*.<sup>[1]</sup> *AcharyaSusruta* termed it as *Mahavyadhi* and described that normal *Prana Vayu* gets vitiated and its movement is obstructed by *Kapha* this leads to increased and labored breathing, results in *Shwasa Roga*.<sup>[2]</sup> The causative factors of *Shwasa roga* are described as *Raja* (Dust) – *Dhumavata* (Smoke-Wind)-*Shitasthana* (Cold water bath)-*Shitaambu* (Intake of cold water) - *Vyayama* (Exercise), and mainly caused by *Vata* and *Kaphadosha*.<sup>[3]</sup> There are five types of *Shwasaroga* mentioned in *Ayurveda* are *MahaShwasa*,

*Urdhva Shwasa*, *Chinna Shwasa*, *Tamaka Shwasa* and *Kshudra Shwasa*. *Tamaksh wasa* is one among them and it is predominantly *vatakaphaja vyadhi*. *PranaVayu* moves in the reverse order, pervades the *Srotas*, afflicts the *Greeva and Shira*, stimulates *kapha* to cause *Pinasa* resulting in *Tamaka shwasa*. At initial stage it is said to be *Sadhya* (curable) and in chronic case it is *Yapya*(Manageable).

*Lakshanas* (Symptoms) of *Tamaka shwasa* are *Pinasa* (rhinitis), *Shwasa* (difficulty in breathing), *Prathamayathivegaschakasathe* (patient is debilitated by cough during the attack of *Shwasa*), *Ateevatheevravegam-cha shwasa* (increased respiratory rate), *Gurghuraka* (abnormal breath sound), *Shwasaprana-prapeedaka* (an acute attack causing respiratory distress),

*Pramohamkasamanascha* (patient faints, gets paroxysmal cough), *Muhushwasee* (frequent breathing).<sup>[4]</sup> *AcharyaCharakahas* advocated various treatment modalities such as *Snehana*, *Swedana*, *Vamana* and *Virechana karma*. Amongst these, *Vamana karma* is the Choice of treatment in *Kapha* predominant diseases and it expels the stagnant *MalarupiKapha* from the *Srotas* (Channels) and normalizes the movement of *Vata*.

On the basis of its sign and symptoms, *Shwasa* can be correlated with Asthma.

Asthma is a syndrome characterized by airflow obstruction that varies markedly, both spontaneously and with treatment. Asthmatics harbor a special type of inflammation in the airways that makes them more responsive than non-asthmatics to a wide range of triggers, leading to excessive narrowing with consequent reduced airflow and symptomatic wheezing and dyspnea. Narrowing of the airways is usually reversible, but in some patients with chronic asthma there may be an element of irreversible airflow obstruction. It is one of the most common chronic diseases globally and currently affects approximately 300 million people worldwide.<sup>[5]</sup>

*Arkapatri* is having similar appearance to that of leaves of *Arka* so it is called as *Arkapatri*.<sup>[6]</sup> *Tylophoraasthmatica* or *Tylophoraindica* (family Asclepiadaceae) commonly known as 'Anantmul' is indigenous to India found in the sub-Himalayan tract extending from Uttar Pradesh to Meghalaya. And it is a slender, perennial climber with long, fleshy and Knotty roots and semi shrubby with long and twinning stem. Leaf is 5 to 10 cm long and 2.5 to 5.7 cm broad. Ovate or elliptic - oblong, acute or acuminate, often apiculate, glabrous, more or less pubescent especially when young, petioles 6 to 13 mm long.<sup>[7]</sup> Flowers are minute (1-1.5cm across) and orolla is greenish yellow or greenish purple in color. Fruit is a follicle.<sup>[8]</sup> The leaves and roots of the plant contain 0.2-0.46 % therapeutically important alkaloids viz. tylophorine, tylophorinine and

tylophorinidine. Other major alkaloids include tylophoridine, desmethyl tylophorine, desmethyltylophorinine, desmethyl tylophoridine, anhydrous dehydrotylo-phorinine. It has *Tikta rasa*, *UshnaVeerya* and *Teekshnaguna*. And *Prabhvais Vamaka*.<sup>[6]</sup> and it is used as a folk remedy in the treatment of bronchial asthma, bronchitis, rheumatism, allergies, inflammation, dysentery, whooping cough, diarrhea, fever, eye diseases, and urinary disorders. The other reported activities include Anti-inflammatory, Anti- tumor, Anti-allergic, Hepato- protective, Diuretic, Antimicrobial, and Immune-modulatory activity.<sup>[7]</sup>

**Folk or Traditional uses:** *Tylophora* in powder form, about 400-500miligrams given once daily to asthmatic patients for six days to cure asthma. And also it can be taken in the amount of 200-400 milligrams dried herb daily.<sup>[9]</sup>

According to clinical trial reports using *Tylophora* leaf in the early morning for a period of 5 consecutive days. The patients were asked to chew the leaf slowly and go to bed and after an hour they were given light tea or water.<sup>[10]</sup>

## CASE REPORT

A 64 year old female patient of *Vatakaphaja prakriti* was admitted in the In Department (IPD) of Sri Dharmasthala Manjunatheswara College of Ayurveda and Hospital, Hassan, Karnataka, India (IP No. 032858) with complaint of difficulty in breathing and cough with yellowish sputum since 3 years and having history of diabetes and hypertension since 5years and under medication.

## CLINICAL FINDINGS:

### General Examination:

The general condition of the patient was fair and his vital signs were normal. He was moderately built and nourished. He had normal appetite, bowel and bladder habits. Her sleep was disturbed due to cough and breathing difficulty.

**Local Examination:** The Respiratory system: Suprascapular and bilateral Wheezing ++Increased RR-26/mins, Temp-97 F On the basis of these, the patient was diagnosed as a case of *Tamaka shwasa*.

**Treatment:**

After careful assessment and examination, the patient was treated with *Vamana* as the first line of treatment for her complaints for a period of 03 days. *Sthanikaabhyanga* with *Brhuatsaindavaditaila* followed by *Nadisweda* was given as a *Poorvakarma* (Preparatory procedure) Later 15 ml of *Arkapatripatraswarasa* was given for *pana* (orally), then after 15 minutes *lakshanas* (symptoms) of *Vamanalike Praseka* (Nausea) and *Hrullasa* (Salivation) observed after administration of the *Swarasa* and *Vamana* (Emetic) happened with four Vegas (Times).

After the completion of treatment the patient discharged with advice medications like 1) Syrup. *Kanakasava* 3tsp TID with warm water 2) Tablet.

*Shwasakutara rasa* with *shunti rasa* 1TID 3) Tablet. *Khadiradivati* 1 TID for chewable for 15 days

**FOLLOW UP AND OUTCOMES:**

Assessment criteria before and after treatment was taken from which significant improvement were noted. Significant reduction in signs and symptoms were observed after *Vamana karma* based on which the outcomes were assessed.



Fig a) *Tylophoraasthmatica*

Table1: Assessment grade for Subjective criteria

SL No	ASSESSMENT CRITERIA	G0	G1	G2	G3
1	Breathlessness	Absent	mild- while walking can lie down	While at rest-prefers sitting	While at rest-sits upright
2.	Wheeze	Absent	moderate - often only at end expiration	Loud-throughout expiration	Usually loud-throughout inhalation & exhalation
3.	Frequency of <i>swasavega</i>	Absent	symptoms lasting for <1 hour	Symptoms lasting for 1-3 hours	Symptoms lasting for more than 3 hours
4.	Cough	Absent	after exercise	Continuous, disturb work	Continuous, disturbs normal activity
5.	Sputum	Absent	Only in morning	4-5 times/day	Continuously
6.	Chest tightness	Absent	Mild	Moderate	Severe
7.	Pulse/min	<80	80-100	100-120	>120
8.	Respiratory rate/min	18-23	24-30	31-40	>40
9.	PEFR (Peak Expiratory Flow Rate)	>80 % of the predicted value	70-80 % of the predicted value	61-70 % of the predicted value	61-70 % of the predicted value

Table2: Outcome assessment in *Tamakashwasa*

SL.NO	ASSESSMENT CRITERIA	BEFORE TREATMENT	AFTER TREATMENT
1.	Breathlessness	2	0
2.	Wheeze	2	1
3.	Frequency of <i>Shwasavega</i>	2	0
4.	Cough	2	1
5.	Sputum	2	0
6.	Chest Tightness	1	0
7.	Pulse Rate	2	0
8.	Respiratory Rate	1	0
9.	PEFR (Peak Expiratory FlowRate)	1	0
10.	Total score	15	2

**DISCUSSION**

*Tamak-shwasa* is defined as “*Vischeshatdurdinetamyeshwasasatamakom*

*ataha*” means the attack of *shwasa* with *tama pravesha* (entry in to darkness) which occurs especially during

*durdina*(Cloudy).*Tamakashwasa* mainly caused by *Vatakaphajadosha*, and imbalanced status of *Vata* and *KaphaDosha* remains in *Lina –Avastha*. *Bahyasnehana* on *Urapradesha* (Chest region) with *Bruhatsaindvaditaila* followed by *Nadisweda* helps for the liquification of the *GratithaKaphadosha*. *Vamana karma* considered as best line of treatment for *Kaphapradhana* disorders. *Arkapatri* possess *Tikta rasa*, *Teekshnaguna* and *Ushnaveerya* and It is having *Vamanakaraprabhava* helps in *VamanaKarma*, Through *Vamanait* expell the *kaphadosha* hence it act as *Shwasahara*. *Kaphahara* because of *Tiktarasa*, *Teekshnaguna* and *Vatahara* because of *Ushnaveerya*. *Arkapatri* with its expectorant action helps to clear the congestion (*Kapha*) in the lungs.

## CONCLUSION

*Tamaka shwasa* is one of the *pranavaha sroto dustivikara* and one of life threatening diseases which afflicts the human race. So *Ayurvedic* medicines are helpful in decreasing frequency and severity of *Asthmatic* attacks. *Arkapatri patraswarasa* has showed significant improvement in the symptoms of *Tamaka shwasa* and reducing the requirement of bronchodilator puff and improving PEF (Peak Expiratory Flow Rate). Hence single drug proved that it works effectively in *Tamaka shwasa*.

## REFERENCES

1. Raja Radhakanta Dev. *ShabdaKalpaDruma*. 3<sup>rd</sup> ed.Vol-5. Varanasi: Chaukhambha Samskrut series. 1967. P 178.
2. TrikamjiYadvajiAcharya. *Sushruta Samhita Nibandhadangarha* commentary of Dalhanacharya. Uttarantra. Chapter 51.Shwasa Pratisheha. Verse no 5.Varanasi: Chaukhambhaorientalia. Reprint 2009. P 761.
3. TrikamjiYadvajiAcharya. *SushrutaSamhita Nibandhadangarha* commentary of Dalhanacharya. Uttarantra. Chapter 51. ShwasaPratisheha Adyaya.Verse no 4. Varanasi: Chaukhambhaorientalia. Reprint 2009. P 761.
4. TrikamjiYadvajiAcharya. *Agnivesha CharakaSamhitaChakrapani Commentary*. Chikitsasthan. Chapter17. Hikka-Shwasachikitsa. Verse no 11.Varanasi:ChaukhambhaSurbharatiPrakasha. Reprint 2011. P 533.
5. Anthony S.Facui, Dennis L.Kasper, Dan L.Longo, Stephen L.Hauser, J.Larry Jameson, Joseph Loscalzo (Editors). *Harison's Principles of Internal Medicine*.18<sup>th</sup> ed. Vol 2, New Delhi: McGrawHill Medical. P 2102.
6. Acharyapriyavratsharma. *Priyanighantu*.1<sup>st</sup> ed. Pippalayadivarga. Varanasi: Chaukhambhasurbharatiprakashan.1983.P 62.
7. Gupta AK. Quality standards of Indian medicinal plants. *ICMR* 2003; 1: 221-225
8. Kirtikar KR, Basu BD.Indian Medicinal Plants.2<sup>nd</sup>ed.Vol3.Dehradun:International Book Distributors. P 1631-32.
9. A .Sabitha rani, Sudeshnapatnaik, G. Sulakshanaand, B. saidulu. Review of tylophoraindica- an antiasthmatic plant. *FS J Pharm Res*.Vol 1,No 2.
10. Umamaheswari. P, Sailaja.V, Ravanaiah. G, Phanikumar, D.V, C.V. Narasimhamurthy. Role of *Tylophora indica* in treatment of bronchial asthma. *International journal of life science and pharma research*. Vol 7. Issue 1.January 2017.

How to cite this article: Kavyashree MR, HegdePrakash L, Harini A. Arkapatri (*Tylophora asthmatica* (burm. f.) merrill) in tamaka shwasa as a vamaka dravya: a case study. *Int J Health Sci Res*. 2018; 8(11):326-329.

\*\*\*\*\*