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EFFECTIVENESS OF *VASA AVALEHA* IN RESPIRATORY SYMPTOMS OF *JVARA UPADRAVA* – A CASE SERIES

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ABSTRACT

Fever is one of the most concerning illnesses in the present scenario, as it often leads to complications that can seriously impact an individual's health even after recovery. These complications are generally known as sequelae of fever. The ancient classical text also describes this complication in the name of *Jvara Upadrava*, where *Swasa*, *Kasa*, and *Hikka* are the respiratory symptoms. These symptoms manifested due to the vitiation of *Pranavahasrotas* by *Jvara Santhapa*. This is a case series of 10 subjects under the age group of 20-60 years, who have respiratory symptoms after *Jvara*. The study aims to evaluate the effectiveness of *Vasa Avaleha* in the respiratory symptoms of *Jvara Upadrava*. The medicine was administered for 30 days at a dosage of 24g per day *Muhurmuhur* (8 divided doses of 2-hour intervals), followed by 15 days of follow-up. Subjective parameters were assessed on the 0^{th} day, 16^{th} day, 31^{st} day, and 46^{th} day, while objective parameters were evaluated on the 0^{th} day, 31^{st} day, and 46^{th} day. The *Ushna*, *Snigdha*, *Srtoshodhana*, *Deepana*, and *Rasayana* properties of the trial drug help to relieve respiratory symptoms. The anti-inflammatory, bronchodilatory, anti-tussive, expectorant, immunomodulatory, and anti-oxidant action of the trial drug have a significant role in breaking the disease progression. The improvement in the subjective and objective parameters gives more proof that Ayurveda can manage the respiratory symptoms that occur as sequelae of fever.

KEYWORDS: *Jvara Upadrava*, *Vasa Avaleha*, *Pranavahasrotodushti*.

INTRODUCTION

Fever is the elevation of body temperature from its normal level. It is a common immunological response to bacterial and viral infections. In fever associated with respiratory symptoms, the pathogens are piled up in the lung tissue and as a mechanism of response, more neutrophils are brought to the host cells which causes the damage to lung epithelium and produces respiratory symptoms. This is evident from the existence of respiratory illnesses in Covid victims. Among them, fatigue, dyspnoea, chest pain, and cough were the most prevalent respiratory symptoms found in 52%, 37%, 16%, and 14% respectively.[1]

Jvara is the concurrent existence of *Swedavarodha*, *Santhapa*, and *Sarvangagrahana*.[2] Due to the *Jvara Santhapa*, *Shoshana* of *Rasadi Dhatu* occurs that produces different types of *Upadrava Vyadhi*. *Swasa*, *Kasa*, and *Hikka* are the respiratory symptoms of *Jwara Upadrava*.[3] The *Ruksha Guna* of *Vata* and *Ushna Guna* of *Pitta* lead to the drying of *Kapha*, resulting in an obstruction of the *Pranavahasrotas* and manifesting as respiratory issues. Certain pharmacological measures like antitussive medicines and bronchodilators are used to manage these conditions. However, due to the long-standing existence of these respiratory problems as a sequela of fever, the health of an individual is markedly deteriorated. In this scenario, the present study is mainly focused on the management of respiratory symptoms which manifest as *Jvara Upadrava*.

The pathological condition can be corrected by *Samana Oushadha*, which has the properties of *Srotoshodaka*, *Deepana*, *Vatanulomana*, and *Rasayana* action. Hence, considering the treatment principles, a formulation named *Vasa Avaleha*, mentioned in *Bhava Prakasa*, *Rajayakshma Adhikara* with specific indications of *Kasa*, *Swasa*, *Rajayakshma*, *Parswasoola*, *Hritsoola*, *Raktapitta*, and *Jvara* is selected for the management of respiratory symptoms of *Jvara Upadrava*.[4] This article sheds light on the potential benefits of *Vasa Avaleha* in the management of respiratory symptoms of *Jvara Upadrava*.

MATERIALS AND METHODS

The subjects of the age group of 20-60 years who have respiratory problems after the recovery of fever and satisfying the inclusion criteria, attending the OP Department of Kayachikitsa, Pankajakasthuri Ayurveda Medical College & PG Centre Hospital, were taken for the study. Subjects were enrolled in the study after necessary investigation from a recognized standard laboratory.

Inclusion Criteria

1) Subjects of age group 20-60 years.

2) Subjects presenting with respiratory symptoms as *Jvara Upadrava* (15 days after fever within 6 months).[5]

3) Subjects willing to sign the consent form and agree to follow the protocol of the study.

Exclusion Criteria

1)Subjects who have respiratory problems without a history of *Jvara*.

2)Subjects who are known cases of Diabetes.

3)Subjects in the active phase of *Jvara*.

4)Subjects who have known cases of Myocardial infarction or other cardiac problems.[6]

5)Subjects who have known cases of Tuberculosis and Lung Cancer.

Clinical Reports

This present case series included 10 participants diagnosed with respiratory symptoms. After proper evaluation and physical examination, the trial drug was given to subjects, and the results were analyzed based on subjective and objective parameters.

Table 1: Clinical reports of subjects.

No	Age	Gender	History of fever	Complaints with Duration	Diagnosis
Case 1	24	Male	2 months back	Cough, throat irritation, headache, and chest pain due to cough- 10 days	Kasa
Case 2	32	Female	1 month before	Cough, wheezing, dryness of throat, and headache-3 weeks	Kasa, Swasa
Case 3	30	Female	1 month before	Continuous cough associated with headache and chest pain, throat irritation-2 weeks	Kasa
Case 4	38	Female	2 months before	Cough at night and early morning is associated with chest pain and headache- 2 weeks	Kasa
Case 5	24	Male	3 weeks before	Cough and wheezing, along with headache, and chest pain -2 weeks	Kasa, Swasa
Case 6	33	Male	2 months before	Cough and breathing difficulty headache chest pain, throat irritation -1 ½ months	Kasa, Swasa
Case 7	50	Female	2 months before	Cough, Throat irritation hiccups- 2 months	Kasa, Hikka
Case 8	59	Female	2 months before	Cough associated with breathing difficulty, wheezing, throat irritation headache, chest pain-1 week	Kasa, Swasa
Case 9	39	Female	2 months before	Cough associated with throat irritation and pain in flanks- 1 week	Kasa
Case 10	25	Female	1 month before	Continuous cough associated with pain in chest and flanks, throat irritation- 1 month	Kasa

Therapeutic Intervention, Follow-up, and Outcome

The selected subjects based on the inclusion criteria are given *Vasa Avaleha* 24g *Muhurmuhur* (8 divided doses of 2 hours interval) per day for 30 days. The subjective parameter was assessed on 0^{th} day, 16^{th} day, 31^{st} day and 46^{th} day and objective parameter was assessed on 0^{th} day, 31^{st} day and 46^{th} day.

Subjective Parameters

Swarabheda, *Sushkamukha*, *Sushkagala*, *Sirasoola*, *Parswasoola*, *Urasoola*, Wheezing, Time to relief from cough and throat irritation, Cough symptoms Score (CSS -Day time)[7], Cough Symptoms Score (CSS - Night time) [7], Modified Medical Research Council Dyspnoea Scale.[8]

Objective Parameters

Hb%, TC, DC, ESR, AEC

Spirometry reading: FEV_1 FVC FEV_1/FVC PEF

Table 2: Subjective Parameters and gradings

Table 2a: Gradings of *Swarabheda.*

Absent	Grade 0
Present	Grade 1

Table 2b: Gradings of *Shushkamukha.*

No dryness	Grade 0
Mild thirst	Grade 1
Thirst can be controlled.	Grade 2
Thirst that cannot be controlled	Grade 3

Table 2c: Gradings of *Shushkagala.*

No dryness	Grade 0
Mild thirst	Grade 1
Thirst can be controlled.	Grade 2
Thirst that cannot be controlled	Grade 3

Table 2d: Gradings of *Shirasoola.*

No pain	Grade 0
Pain present only during coughing	Grade 1
Pain present intermittently irrespective of cough not affect routine work	Grade 2
Pain present continuously irrespective of cough, affect routine work	Grade 3

Table 2e: Grading of *Parswasoola.*

No pain	Grade 0
Pain present only during coughing	Grade 1
Pain present intermittently irrespective of cough not affect routine work	Grade 2
Pain present continuously irrespective of cough, affect routine work	Grade 3

Table 2f: Gradings of *Urashoola.*

No pain	Grade 0
Pain present only during coughing	Grade 1
Pain present intermittently irrespective of cough not affect routine work	Grade 2
Pain present continuously irrespective of cough, affect routine work	Grade 3

Table 2g: Gradings of Time to relief from cough and throat irritation (TRCT).

Relief within 1-15 min	Grade 0
Relief within 16-30 min	Grade 1
Relief within 31-60	Grade 2
Relief >61 min	Grade 3
No relief	Grade 4

Table 2h: Cough Symptoms Score (CSS): Day-time.

No cough during day	Grade 0
Cough in one short period	Grade 1
Cough for more than two short periods	Grade 2
Frequent coughing, which did not interfere with usual daytime activities	Grade 3
Frequent coughing, which did interfere with usual daytime activities	Grade 4
Distressing cough most of the day	Grade 5

Table 2i: Cough Symptoms Score (CSS): Night-time.

No cough during the night	Grade 0
Cough on waking only	Grade 1
Wake once or early due to cough	Grade 2
Frequent waking due to cough	Grade 3
Frequent cough most of the night	Grade 4
Distressing coughs prevent any sleep	Grade 5

Table 2j: Grading of Wheezing.

No wheezing (None)	Grade 0
Intermittent wheezing presents only during attack (Mild)	Grade 1
Wheezing only in the early morning or during physical exertion (Moderate)	Grade 2
Constant wheezing throughout the day (Severe)	Grade 3
Constant wheezing along with added respiratory sound (Agonizing)	Grade 4

Table 2k: Modified Medical Research Council Dyspnoea Scale.

Not troubled by breathlessness, except with strenuous exercise	Grade 0
Shortness of breath walking on level ground or walking up a slight hill	Grade 1
Walk slower than people of similar age on level ground due to breathlessness, or have to stop to rest when walking at own pace on level ground	Grade 2
Stop to rest after walking 100m or after walking a few minutes on level ground.	Grade 3
Too breathless to leave the house, or breathless with activities of daily living (e.g., dressing /undressing)	Grade 4

OBSERVATIONS AND RESULT

Marked improvement was observed in the subjective parameters such as *Swarabheda*, *Sushkamukha*, *Sushkagala*, *Sirasoola*, *Parswasoola*, *Urasoola*, time to relief from throat irritation, CSS – Day time, CSS- Night time, and MMRCDS.

Remarkable changes are observed in objective parameters such as AEC, FVC, $FEV_{1,}$ and PEF, and all other objective parameters are within normal limits throughout the treatment.

Table 3a: Effect of *Vasa Avaleha* on subjective parameters.

Subjective parameter	***Swarabheda***	***Sushkamukha***	***Sushkagala***	***Sirasoola***	***Parswasoola***
Case 1					
BT	Grade 1	Grade 1	Grade 1	Grade 2	Grade 0
IBT	Grade 0	Grade 0	Grade 0	Grade 2	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 2					
BT	Grade 1	Grade 2	Grade 2	Grade 3	Grade 0
IBT	Grade 0	Grade 1	Grade 1	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 3					
BT	Grade 1	Grade 2	Grade 2	Grade 3	Grade 1
IBT	Grade 1	Grade 0	Grade 0	Grade 2	Grade 1
AT	Grade 0	Grade 0	Grade 0	Grade 2	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 4					
BT	Grade 0	Grade 3	Grade 3	Grade 3	Grade 0
IBT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AT	Grade 0	Grade 1	Grade 1	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 5					

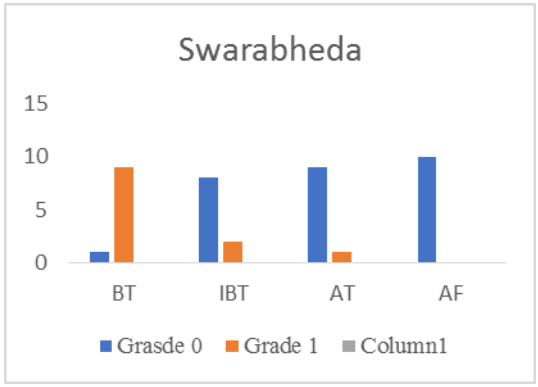
BT	Grade 1	Grade 1	Grade 1	Grade 1	Grade 0
IBT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 6					
BT	Grade 1	Grade 3	Grade 3	Grade 1	Grade 0
IBT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 7					
BT	Grade 1	Grade 3	Grade 3	Grade 0	Grade 0
IBT	Grade 0	Grade 1	Grade 1	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 8					
BT	Grade 1	Grade 2	Grade 2	Grade 3	Grade 1
IBT	Grade 1	Grade 1	Grade 1	Grade 0	Grade 0
AT	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 9					
BT	Grade 1	Grade 3	Grade 3	Grade 0	Grade 2
IBT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 10					
BT	Grade 1	Grade 3	Grade 3	Grade 0	Grade 1
IBT	Grade 0	Grade 1	Grade 1	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
BF -Before Treatment, AT- After Treatment, IBT- In-between treatment, AF -After follow-up					

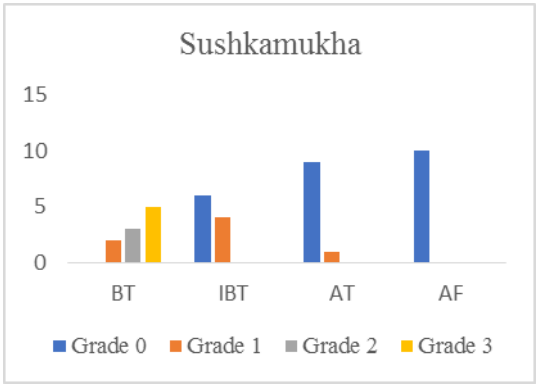
Table 3b: Effect of *Vasa Avaleha* on subjective parameters.

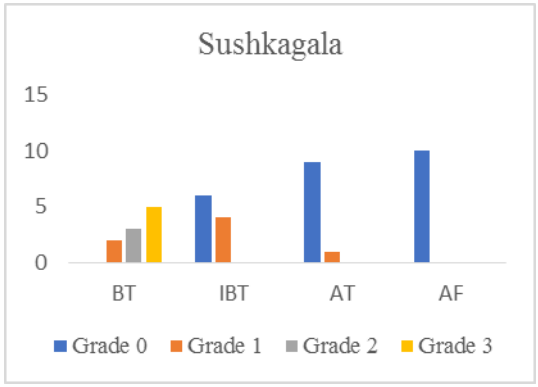
Subjective Parameters	*Urasoola*	Wheezing	TRCT	CSS-Day time	CSS- Night time	MMRCDS
Case 1						
BT	Grade 1	Grade 0	Grade 1	Grade 2	Grade 5	Grade 0
IBT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 1	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 2						
BT	Grade 0	Grade 1	Grade 4	Grade 4	Grade 2	Grade 1
IBT	Grade 0	Grade 1	Grade 0	Grade 1	Grade 2	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 3						
BT	Grade 1	Grade 0	Grade 1	Grade 3	Grade 5	Grade 2
IBT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 1	Grade 1

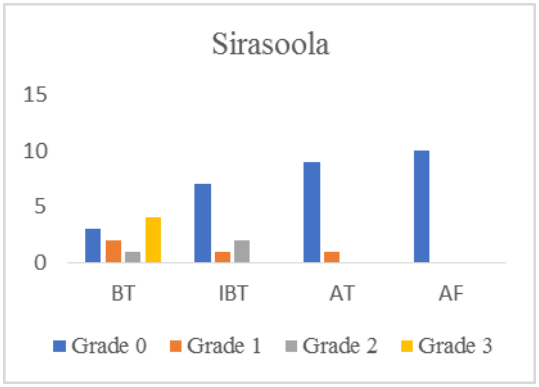
AT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 1
AF	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 1
Case 4						
BT	Grade 1	Grade 0	Grade 0	Grade 4	Grade 2	Grade 1
IBT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 5						
BT	Grade 1	Grade 4	Grade 2	Grade 4	Grade 1	Grade 0
IBT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 6						
BT	Grade 1	Grade 4	Grade 4	Grade 4	Grade 5	Grade 1
IBT	Grade 0	Grade 0	Grade 1	Grade 2	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 0
Case 7						
BT	Grade 1	Grade 0	Grade 4	Grade 4	Grade 4	Grade 3
IBT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 1
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 1
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 8						
BT	Grade 1	Grade 4	Grade 4	Grade 3	Grade 5	Grade 4
IBT	Grade 1	Grade 4	Grade 1	Grade 2	Grade 1	Grade 1
AT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 1
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 1
Case 9						
BT	Grade 1	Grade 0	Grade 0	Grade 3	Grade 5	Grade 0
IBT	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
Case 10						
BT	Grade 1	Grade 0	Grade 4	Grade 3	Grade 5	Grade 1
IBT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 1	Grade 0
AT	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
AF	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0

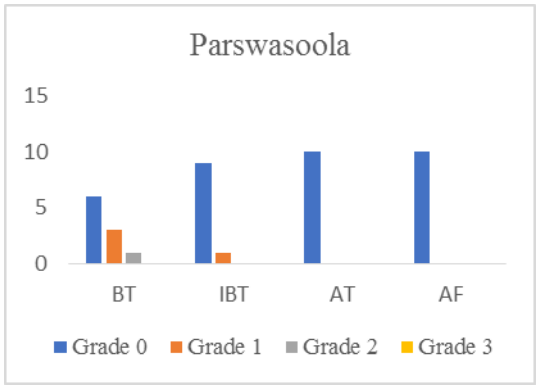
Effectiveness of Treatment on Subjective Parameters

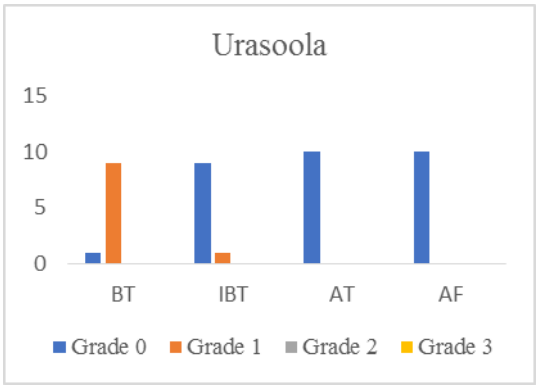


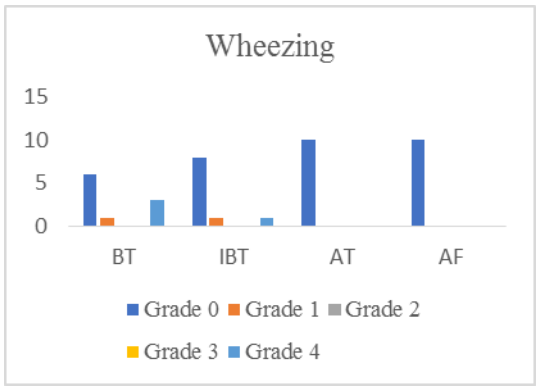


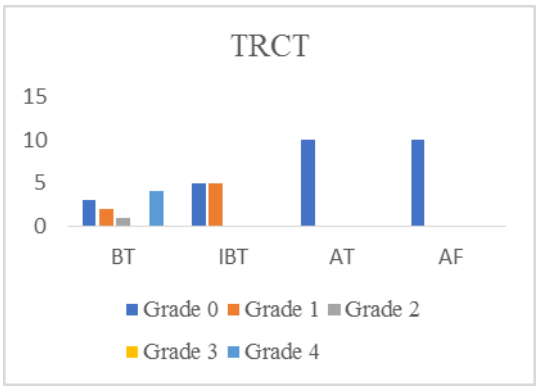


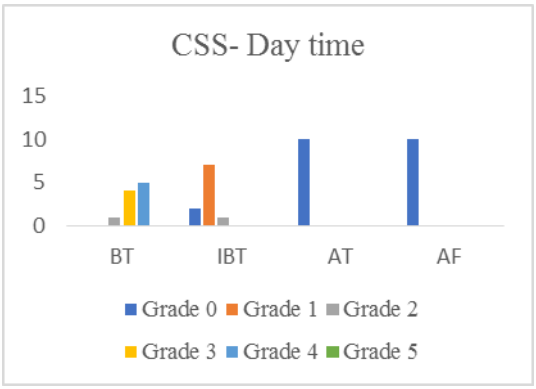


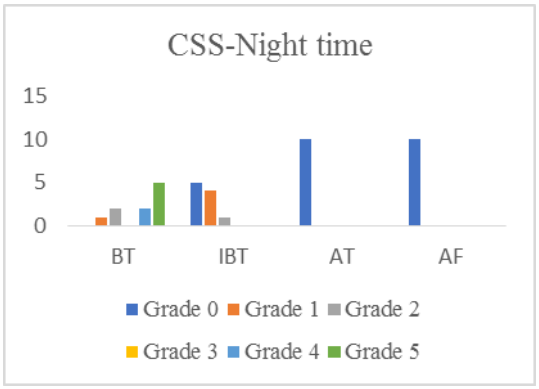












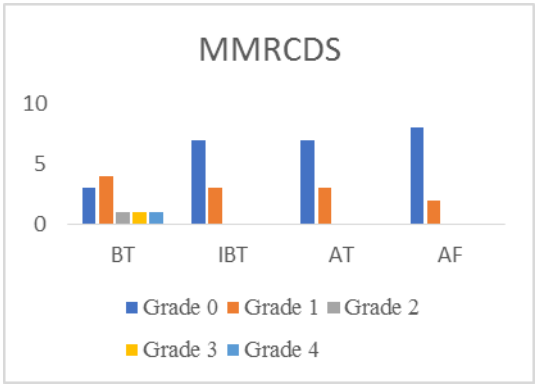


Table 4: Effect of *Vasa Avaleha* on objective parameters.

Objective Parameter	ESR (mms/hr)	AEC (cmm)	FVC (%)	FEV_1 (%)	FEV_1/FVC (%)	PEF (%)
Case 1						
BT	6	1376	75.19	86.76	105.58	62.79
AT	5	1064	80.16	103.41	111.80	104.62
AF	5	990	86.94	102.09	111.79	108.20
Case 2						
BT	23	588	82	69	88	47
AT	20	776	81.86	87.77	98.25	72.43
AF	20	1320	83.66	92.37	97.19	69.40
Case 3						
BT	25	444	65.69	81.96	104.03	48.62
AT	23	276	63.35	72.64	105.21	63.94
AF	23	450	63.15	85.26	109.23	62.54
Case 4						
BT	22	637	82.76	74.61	91.75	64.41
AT	21	308	77.59	74.88	98.22	40.27
AF	13	288	77.01	83.82	110.78	77.77
Case 5						
BT	10	306	75.86	70.38	94.37	66.29
AT	5	268	78.62	81.86	105.26	78.38
AF	10	416	81.37	93.33	116.14	90.46
Case 6						
BT	7	670	95.3	105.53	107.27	87.16

AT	9	536	95.98	109.64	107.18	71.94
AF	6	390	96.69	111.98	108.21	85.22
Case 7						
BT	14	416	61.60	75.43	120.91	72.39
AT	30	400	63.98	78.77	122.65	99.70
AF	20	396	57.84	70.92	124.14	91.79
Case 8						
BT	77	540	34.74	34.57	100.16	24.94
AT	80	329	56.25	79.07	132.77	79.19
AF	32	345	53.47	71.69	124.90	57.92
Case 9						
BT	21	712	70.51	86.80	114.40	70.21
AT	8	305	63.17	85.48	117.67	96.34
AF	17	395	64.57	80.53	115.67	92.63
Case 10						
BT	25	972	96.44	97.72	102.63	86.83
AT	30	267	101.47	103.69	103.50	108.46
AF	30	696	96.28	99.49	104.66	109.15

DISCUSSION

Respiratory functions are carried out by the *Pranavahasrotas*. *Swasa Kasa* and *Hikka* are the main respiratory problems that originate due to the vitiation of *Pranavahasrotas. Pitta* is the main *Dosha* in the manifestation of *Jvara Santhapa*, with the *Ushnatwa* of *Pitta* being the dominant factor. Due to this, the *Prakritha Kapha* present in the body liquefies and moves to different parts. *Uras* is the *Pradhana Sthana* of *Kapha Dosha,* and *Hrdaya* as well as *Phuphusa* are located in the *Urapradesha*. Consequently, there is a chance of *Kapha* accumulation in the *Pranavahasrotas*. As the *Santhapa* progresses, the *Rukshatwa* of the body increases, leading to a simultaneous vitiation of *Vata,* which dries the *Kapha* in the *Pranavahasrotas* and produces *Srotorodha*. This *Shoshitha Kapha* obstructs the movement of *Vata*. Consequently, the body attempts to expel these *Malaroopa Soshita Kapha*, leading to the development of *Kasa*, which sometimes manifests as *Hikka*. If the *Dhatusoshana* progresses or if *Kasa* is neglected, it can lead to *Swasa*. In respiratory symptoms of *Jvara Upadrava* the vitiation of *Pranavahasrotas* depends on the changes in *Sareera* produced by the progression of the main *Vyadhi*, the existing *Khavaigunya* in the body, and the *Vaikritha Dosha*.

Mode of action of *Vasa Avaleha* in respiratory symptoms of *Jvara Upadrava*

Vasa Avaleha contains *Vasa*, *Pippali*, *Sitasarkara*, *Ghrita*, and *Madhu*. Although all the ingredients play a role in alleviating the disease, *Vasa* and *Pippali* have a major role in breaking down the *Samprapti*. *Ghrita*, *Madhu*, and *Sitasarkara* act as supportive agents to

relieve the disease. The *Malaroopa Sushka Kapha* in the respiratory channels is the causative factor of respiratory symptoms of *Jvara Upadrava*. Analyzing the properties of each ingredient, the *Katu Vipaka* of *Vasa*, *Ushna*, and *Snigdha* properties of *Pippali* liquefy the dry *Kapha* adhered within the *PranavahaSrotas*. *Ghrita* by its *Snigdha Guna* increases *Kledatva* of this *Soshitha Malaroopa Kapha*. Which also normalizes the *Vata* by reducing the *Rukshtwa* of the body. *Kashaya Rasa* and *Lekhana* property of *Madhu* helps to remove the *Kapha* from the channels. *Sitasarkara* by its *Madhura Rasa* balance the *Vata* as well as *Pitta*. Moreover, *Vasa* has *Swasakasahara* property.

The *Deepana* and *Rasayana* action of *Ghrita* and *Pippali* also helps *Sampraptivighatana* by enhancing the *Agni* and thereby providing nourishment to *Dhatu*. Hence, considering the overall properties of ingredients, *Vasa Avaleha*, which has *Srothosodhana*, *Deepana*, and *Rasayana* action, has a significant role in relieving the respiratory illness that occurs as *Jvara Upadrava*.

Action of the drug as per modern science

The accumulation of mucous secretions produces respiratory symptoms such as cough, dyspnoea, and wheezing because of the inflammation in the airways. The chemical constituents in *Vasa*, such as vasicine, vasicinone, and the piperine in *Pippali*, the conjugated linolenic acid in ghee, and the phenolic component in honey have anti-inflammatory activity. Vasicine and vasicinone help with bronchodilatation, thereby reducing the symptoms. These constituents also help to liquefy the mucous thus clearing the airways.

Most of the respiratory illness occurs due to viral and bacterial infections. The antibacterial activity of *Vasa* and *Pippali* acts as a protective factor. *Vasa*, *Pippali*, and *Sithasarkara* have anti-microbial action. Ingredients like *Vasa*, and *Madhu* have anti-oxidant properties. The immunomodulatory action of the *Pippali*, and the anti-allergic action of *Ghrita* help to reduce the symptoms. While considering the individual properties of the ingredients, *Vasa Avaleha* can break the pathophysiology in respiratory symptoms of *Jvara Upadrava*.

CONCLUSION

Swasa, *Kasa*, and *Hikka* are the respiratory symptoms that are produced due to the vitiation of *Pranavahasrothas*. Due to the *Jvara Santhapa*, *Rukshata*, and *Ushnata* of the body along with *Vataprakopa* occur. This promotes the *Soshana* of *Rasa Dhathu* with its *Mala*. This *Soshitha Malaroopa Kapha* obstructs the normal movement of *Vata* in the *Pranavahasrothas*.

And consequently, the vitiated *Vata* along with *Kapha* produce *Swasa*, *Kasa*, and *Hikka*. If the *Dhatusoshana* progresses or if *Kasa* is progressed, it can lead to *Swasa*.

The *Sampraptivighatana* can achieved by using drugs with *Ushna*, *Snigdha*, *Srtoshodhana*, *Deepana*, and *Rasayana* properties. The trial drug *Vasa Avaleha* possesses all these properties. It's anti-inflammatory, bronchodilatory, anti-tussive, expectorant, immunomodulatory, and anti-oxidant action also help to reverse the pathophysiology. It is evident from significant changes in subjective as well as objective parameters from this case series.

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