**AYURVEDIC MANAGEMENT OF VATIK KASA IN ERA OF COVID 19- A CASE SERIES**

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**ABSTRACT**

Majority of the patients having cough (Kasa) is the presentation of respiratory disease. In general, air pollution; smoking and improper food habits are the triggering factors, which enhance this disease. Since the time 2nd wave of COVID-19 has gone the patients these days are coming with the major complaints of severe itching in the throat along with dry cough. Kasa is Kapha-Vata dominant disorder having 5 types, among which the pattern of cough relates to most of the symptoms of Vatik Kasa. The drugs like Vasavaleha and Chandramruta rasa helps to alleviate the vitiated Kapha Vata Dosha along with Haritaki as Anulomna and Abhyanga with Sarshapa taila mixed with Saindhava lavan, and Vashpa swedana on Uraha Pradesha. The major symptoms of Vatika Kasa subsided within 3 days and rest of the symptoms got cured in 10 days. Aim: Management of Vatik Kasa by Ayurvedic treatment modalities. Methodology: The study was conducted on three patients having symptoms of Vatik Kasa. In this case series, 3 patients were treated with local Abhayanga and Swedana, Haritiki, Vasavaleha and Chandramruta rasa and for 10 days. Conclusion: The use of Vasavaleha and Chandramruta rasa Muhurmuhu along with local Abhayanga and Swedana showed significant improvement in the symptoms of the patients. Improvement was quite quick and highly significant on the symptoms of Vatika Kasa.

**INTRODUCTION**

Kasa is a disease mentioned in Ayurveda that involves most of the presentations of a respiratory tract disease. For normal functioning of Pranavaha Srotas, Prana and Udana Vayu are responsible. In the pathogenesis of disease Kasa, vitiated Kapha obstructs the free flow of Prana Vayu in Kantha and Ura. In Kasa roga, vitiated Prana Vayu along with Udana vayu produces sounds that resembles with broken pieces of bronze on striking.[3] Kasa is an independent disease and a symptom of many diseases. Acharya Charak has mentioned 5 types of Kasa viz., Vataja, Pittaja, Kaphaja, Kshataja and Kshayaja.[2] The prodromal symptoms of Kasa are feeling of spicules present in throat and mouth, itching in throat and obstruction to passage of food.

The triggering factors of Kasa are exposure to dust, smoke, strenuous exercise, excessive dry food intake, entry of food particles into respiratory tract, forcibly controlling natural urges like coughing, sneezing.[3]

Since the time 2nd wave of COVID-19 has gone patients of cough are coming to O.P.D with the major complaints of headache, severe itching in the throat along with dry cough. Repeated episodes of coughing especially after exposure to cold air leads to the severe pain in ribs. The pattern of cough reported by patients after COVID-19 almost relates to most of the symptoms of Vatik Kasa. As mentioned by Acharya Charka the main symptoms of Vatika Kasa are Shushkakasa (dry cough), Parshawahoola (pain in sides of chest), Shirashoola (headache), Swarbheda (hoarseness of voice), Shushka kantha vaktra (dryness in throat and mouth).[4]

As Kasa is Nidanarthakara Vyadhi i.e., causative factor for other diseases and Vatik Kasa remains for longer duration can produce dreadful conditions like Kshaya.[5] So it is important to treat this disease at its earliest.
As mentioned by Acharya Charka in Chikitsa Sutra of Vatika Kasa that 1st Snehana should be done. For that Abhayanga (local) can be done and Avleha can also be given. After the process of Snehana gets completed Swedana should be done. In case Pitta or Kapha dosha are associated with Vataj Kasa Sneha Virechana can also be given.[6]

Keeping in mind the Chikitsa Sutra of Vatik Kasa as mentioned by Acharya Charak local Abhayang of Uraha Pradesh with Sharshap Taila mixed with Saindhava lavan followed by Swedana helps in pacifying the Vata due to Usna Guna. Acharya Vrundhamadhava has mentioned Vasa as the choice of drug for Kasa roga. The main ingredient of Vasavaleha is Vasa along with Pippali and Ghrita and is advised to take along with Madhu[7]. As all these ingredients possess Vatahara and Kapahara properties, and it becomes the potent medication to pacify the symptoms of Vatik Kasa. Also Chandramruta rasa is quite potent drug which possess the qualities to pacify the symptoms of Vatik Kasa.[8]

Case Series

This case series included the patients of Vatika Kasa who visited the Govt. Ayurvedic Dispensary Basolhi Town of District Kathua, J&K. Demographic data of the patients included their age, gender, occupational history and personal history. Patients were examined physically and required investigations were carried out. 1st follow-up and assessment was done on 4th day and and 2nd follow-up and assessment was done after completion of treatment of 10 days. All the medication provided to the patients especially for internal use was of the Govt supply that has been provided by the Department of Ayush to Govt. Ayurvedic Dispensary Basolhi Town. So the present attempt was initiated to see the efficacy of Ayurvedic management of Vatik Kasa in era of COVID 19.

Case Presentation

Case 1

A male patient aged 45 years visited OPD with complaints of dry cough, throat irritation, severe itching in ears, difficulty in deglutition and constipation since a week. Due to excessive cough, patient had disturbed sleep, as the mild pain in flanks while coughing, weakness and hoarseness of voice. The episode of cough increased at night and after exposure to cold air. No history of fever, running nose, difficulty in breathing, and any other major systemic illness on examination was found, no history of allergy reported. On examination, blood pressure, temperature, pulse rate were normal, no pedal edema was there. Cough was without expectoration and mucous.

Prakruti was Vata Pittaja, no any family history of tuberculosis, extrinsic asthma and allergy. The occupation of the patient was Govt. employee. Patient had no history of smoking.

On chest examination, air entry on both sides was found normal and no wheezing and rhonchi was found. Per abdomen examination, non tender and hard. Mild pain was present in the right iliac fossa (due to stress due to coughing). On CVS examination, S1 and S2 were normal, and no murmur was heard. On CNS examination, patient was conscious and oriented. On throat examination, redness was observed at the soft palate. No swelling on larynx, and tonsils was observed.

Case 2

A middle aged female patient of 42 years came to OPD with symptoms of dry cough, throat irritation, severe itching in ears, headache and general weakness since 1 day. She complained of repeated episode of cough during day that increased more at night. Patient had visited previously for the treatment of fever before 6 months with same complaints, and got relieved. On enquiring, it was found that there was no history of dyspnoea, breathlessness, no history of tuberculosis, bronchitis and diabetes mellitus and hypertension. Menstrual history was normal but occasionally patient was dysmenorrheagic. There was history of LSCS before 5 years, having one male child, pulse was regular and afebrile. Urine and stool were normal. No pedal oedema and cyanosis was observed. Tongue was coated. Patient was of Alpasatva, Prakruti of patient was Vata Pittaja and Akruti was Madhyama.

There was no family history of diabetes mellitus and hypertension. Patient was losing weight, so AFB sputum test was advised to rule out possibility of tuberculosis, but it was found negative. On examining the chest, air entry (AE) was found reduced on right side (RS). No adventitious sounds were heard. Patient was advised to take X-Ray of chest in AP and lateral view along with WBC, AEC, but all the investigations were within normal limit. As the patient was house wife by occupation, Vataj kasa was diagnosed as per Ayurvedic etiology.

Case 3

A male patient of 28 years came to OPD with complaints of coughing, irritation in throat and dryness of mouth since 2 days. Parshavashoole, Hritashoole, Shirashtool were also another complaints as this patient also had repeated episode of cough during day as well as night. Prakruti was Vata kaphaja, no family history of tuberculosis, extrinsic asthma and allergy. Patient was in government service. On examination, no other major findings were observed.
Table 1: Treatment Protocol

| Drugs                                         | Dosage                  | For 1st 3 days Kala and Anupana | Dosage                  | 4th to 10th day Kala and Anupana |
|-----------------------------------------------|-------------------------|---------------------------------|-------------------------|---------------------------------|
| Abhyanga (sarshapa taila with Saindhava Lavana) | Q.S                     | Early morning empty stomach     | Q.S                     | Early morning empty stomach     |
| Vashpa swedana                                | Early morning empty stomach |                                | Early morning empty stomach |                                |
| Haritaki churna                               | 5 gm                    | Early morning empty stomach evening 6 pm with Ushodak | 5 gm                    | Early morning empty stomach evening 6 pm with Ushodak |
| Vasavaleha                                    | 5 gm                    | Every 2 hours with Ushodak      | 5 gm                    | 1 hour before meal 3 times a day Ushanodak  |
| Chandramruta rasa                             | 2 tab (250 mg)          | Every 2 hours with Adrak swaras | 2 tab (250 mg)          | 1 hour before meal 3 times a day Adrak swaras  |

Table 2: Pathya-Apathya

| Pathya Ahahar                                | Apathya Ahahar           |
|----------------------------------------------|--------------------------|
| Ushanodak (reduce upto 1/4th)                | Avoid Pisht anna         |
| Mudag yush, Masoor yush, Shali Chaval.       | Excessive Lavan and Katu ras |
| Dudhi, Karvelak, Patol, Kashmand             | Dairy products.          |
|                                              | Junk food                |
| Pathya Vihar                                 | Apathya Vihar            |
| Nirvata sthana shayanarth                    | Divaswapan, Ratrijagran  |
| Patients were advised to cover the head and ears while going out. | Pravatsevan, Chinta adhikya. |
|                                              | Vyayam                   |

Assessment

Laboratory investigations of the patients have been mentioned in table 3 and vitals of the patients i.e., Peak Expiratory Flow Rate (PEFR), Breath Holding Time (BHT), Blood Pressure (BP), Respiratory Rate (RR) and Pulse Rate (PR) have been mentioned in table 4.

Score assessment tables of Vatika Kasa and frequency of cough have been mentioned in table 5. Results of this scoring assessment have been mentioned in table 6 and table 7.

Observations

It has been observed that after COVID-19 spread, patients who visited OPD come with complaint of dry coughing rather than productive coughing these days. Though the patients presented in this case series were not affected with COVID-19. This issue of specific coughing pattern of patients has to be explored more in the coming days yet.

First patient was Govt. employee by profession in water supply department. He was doing night duties. It may be possible that pollen grain allergy and exposure to cold might be the triggering factors for Kasa, because in Ayurveda, exposure to cold wind, food and environment aggravates Vatadosha and hence causes Vatik Kasa. Within 3 days, patient felt relief in throat irritation, by this time he found no difficulty in deglutition. Now he felt soothing effect in throat, and coughing was relieved within 10 days. His eosinophil count and ESR were also decreased, showing good response in fighting allergens. Sleep was better and not disturbed due to coughing. Constipation was also relieved with medication due to Anulomana action of Haritaki. For the management of Kasa, Vatanulomana drug does wonders along with Vatahara and Kaphahara drugs.

Second patient was house wife of Alpa Satva. She was counseled first and given the medication. By the end of 3rd day, she felt energetic than before, her weakness decreases with medication due to Balya and Rasayana effect of the ingredients. As patient comes with burning micturition, Chandramruta rasa helps to relieve Daha and burning micturition. Her symptoms were relieved after 10 days and she was advised to continue Pathya ahara and Vihara. When she came for follow up, her complaints were relieved.

Third patient was government servant in police department so patient got subsequent relief, at the time of follow up patient’s complaints were less. Parshavashooola and Hritashoola was reduced.

It was observed that internal medication given Muhura muhura every 2 hours along with strict Pathya Palan, all the three patients got results within 3 days of
time. Patient's itching in the throat was reduced and repeated episode of cough also reduced and sleep was sound after medication intake. They felt warmth during medication intake, might be due to *Ushna* property of ingredients and also due to *Pathya palana*.

Reduction in increased eosinophil count and ESR, denotes good response in fighting allergens; increase in breath holding time and respiratory rate coming to normal rate shows improvement in signs and symptoms of *Vatik Kasa*.

Patients were called upon on 4th day for follow up to see improvement in condition. It was observed that even on the third day, the major complaints of the patients subsided. Patients were advised to continue the medication as per protocol (as mentioned in table 1) after three days upto 10 days along with *Pathya ahar vihar palana*. All the three patients had marked improvement in symptoms of *Vatik Kasa*.

### Table 3: Laboratory Investigations of the Patients

| Investigations   | Patient 1 Before treatment | Patient 1 After treatment | Patient 2 Before treatment | Patient 2 After treatment | Patient 3 Before treatment | Patient 3 After treatment |
|------------------|----------------------------|---------------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| TLC (cu mm)      | 11700                      | 11000                     | 9400                       | 7400                       | 9500                       | 10000                     |
| Neutrophils (%)  | 67                         | 70                        | 63                         | 70                         | 75                         | 72                        |
| Lymphocytes (%)  | 24                         | 25                        | 27                         | 22                         | 21                         | 24                        |
| Eosinophils (%)  | 4                          | 3                         | 1                          | 1                          | 2                          | 1                         |
| Monocytes (%)    | 4                          | 5                         | 2                          | 2                          | 2                          | 3                         |
| Hb (gm%)         | 13.1                       | 13.4                      | 11.4                       | 11.5                       | 14                         | 15.2                      |
| ESR (mm/hr)      | 106                        | 60                        | 22                         | 30                         | 22                         | 24                        |
| AEC (L)          | 450                        | 350                       | 50                         | 100                        | 300                        | 150                       |
| FBS (mg/dl)      | 93                         | 96                        | 112                        | 107                        | 108                        | 104                       |
| SGOT (IU/L)      | 17                         | 24                        | 22                         | 20                         | 27                         | 30                        |
| SGPT (IU/L)      | 18                         | 20                        | 12                         | 17                         | 17                         | 20                        |

### Table 4: Vitals of the Patients

| parameters | Patient 1 Before treatment | Patient 1 After treatment | Patient 2 Before treatment | Patient 2 After treatment | Patient 3 Before treatment | Patient 3 After treatment |
|------------|----------------------------|---------------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| PEFR       | 210                        | 380                       | 250                        | 300                        | 300                        | 400                       |
| BHT        | 18                         | 26                        | 14                         | 22                         | 20                         | 35                        |
| BP         | 128/84                     | 120/82                    | 100/70                     | 116/78                     | 130/90                     | 120/84                    |
| RR         | 22                         | 18                        | 20                         | 18                         | 19                         | 18                        |
| Pulse rate | 78                         | 76                        | 80                         | 82                         | 75                         | 80                        |

### Table 5: Assessment of parameter of frequency of *Vatika kasa*

| Signs / Symptoms | Severity | Scoring |
|------------------|----------|---------|
| *Shushkakasa* (dry cough) | Absent | 0       |
| Minute quantity of sputum expectorated at the end of a bout | 1       |
| No sputum expectorated at all | 2       |
| No sputum expectorated, with dryness of mouth, throat and chest | 3       |
| No sputum expectorated with *Parshavashoola, Hritshoola* and *Urashoola* | 4       |
| *Parshawashoola* (pain in sides of chest) | Absent | 0       |
| Pain at the end of a bout | 1       |
Pain during each act of coughing & 2  
Pain present irrespective of cough & 3  
Shirashoola (headache) & Absent & 0  
Pain at the end of a bout & 1  
Pain during each act of coughing & 2  
Pain present irrespective of cough & 3  
Swarbheda (hoarseness of voice) & Absent & 0  

Present & 1  
Shushka kantha vaktra (dryness in throat and mouth) & Absent, no dryness & 0  
Mild thirst & 1  
Thirst can be controlled & 2  
Thirst cannot be controlled & 3  
Daurbalya (weakness) & Absent & 0  
Able to do work with tiredness & 1  
Not able to do routine work & 2  
Not able to do routine work, with giddiness or fainting episodes & 3  
Frequency -Bouts of cough & 5 no. of bout of cough/hour & 0  
10 no. of bout of cough/hour & 1  
15 no. of bout of cough/hour & 2  
20 no. of bout of cough/hour & 3  
More than 20 no. of bout of cough/hour & 4  

**Table 6: Results of Assessment of Vatik Kasa on 4th day of Treatment**

| Symptom | Shushka kasa | Parshva shoola | Shirashoola | Swarbheda | Shushka, Kantha vaktra | Daurbalya | Frequency |
|---------|--------------|----------------|--------------|------------|------------------------|-----------|-----------|
| **Patient 1** |  |  |  |  |  |  |  |
| BT | 4 | 3 | 0 | 1 | 2 | 1 | 4 |
| AT | 2 | 1 | 0 | 0 | 1 | 0 | 2 |
| Diff % | 50 | 33.33 | 0 | 100 | 50 | 100 | 50 |
| **Patient 2** |  |  |  |  |  |  |  |
| BT | 4 | 1 | 2 | 1 | 3 | 2 | 4 |
| AT | 1 | 0 | 1 | 0 | 2 | 1 | 1 |
| Diff % | 75 | 100 | 50 | 100 | 33.33 | 50 | 75 |
| **Patient 3** |  |  |  |  |  |  |  |
| BT | 4 | 3 | 2 | 1 | 2 | 1 | 4 |
| AT | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Diff % | 100 | 66.66 | 50 | 0 | 50 | 100 | 100 |

*BT: Before treatment, AT: After treatment, Diff %: Difference in %*

**Table 7: Results of Assessment of Vatik Kasa After 10 days of Treatment**

| Symptom | Shushka kasa | Parshva shoola | Shirashoola | Swarbheda | Shushka, kantha vaktra | Daurbalya | Frequency |
|---------|--------------|----------------|--------------|------------|------------------------|-----------|-----------|
| **Patient 1** |  |  |  |  |  |  |  |
| BT | 4 | 3 | 0 | 1 | 2 | 1 | 4 |
| AT | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Diff % | 100 | 66.66 | 0 | 100 | 100 | 100 | 100 |
DISCUSSION

*Kasa* is the disease of Pranavaha Srotas. It may develop as an independent disease, as a symptom or as complication of other diseases. Ayurveda has described many herbal and herbomineral formulations for management of *Kasa* along with *Pathya Ahara* and *Viharaya*.

*Kasa* is the debilitating disease of *Pranavaha Srotas*, when left untreated, it may lead to dreadful diseases like Shwasa, Shosha, Rajayaksha, Uraksha and Raktapitta. *Kasa* roga affects the Pranavaha Srotas, so it has to be treated at its earliest. Because if left untreated, it may lead to further complications and affects the daily activities of a person.

Respiratory tract infections are most common infection and the recurrent *Kasa* is considered as the indicator of decreased Vyadhikshamatva (immunity against specific disease) or Bala (strength) or Ojas (essence of Dhatu). [9]

As mentioned by Acharya Charka in *Chikitsa Sutra* of *Vatika Kasa* that 1st *Snehana* (Abhayanga) followed by *Swedana* should be done. [10] *Vayu* dominates the Sparshan inderiya and its site is Twak. Virya of the Taila used for Abhayang enters into the body after undergoing *Paka* with Bharajak Pitta in Twak and produces desired therapeutic action. [11] Abhayang of Uraha Pradesh with Sharshap Taila mixed with Saindhava lavan helps in pacifying the Vata. *Sharshap Taila* has Katu, Tikta rasa, Snigdha, Tikshana laghu guna, Ushna Veerya, when mixed with Saindhava lavan and applied locally the penetration of Taila through skin increases and *Snehan* followed by *Swedana* helps in liquification of Doshas and causes Mriduta of the *Pranavaha Srotas* that leads to pacification of Vata. [12]

Acharya Sharangdhara has mentioned *Haritaki* as Anulomana aushadhi. It 1st does *Paka* of the Doshas after that eliminates them from the body. In case of *Vatik Kasa* since *Vayu* gets *Pratiloma* so *Haritiki* was given to the patients for *Anuloman* purpose. [13]

*Vasavaleha* is advised in respiratory diseases; it pacifies disease by *Vata* - *Kaphaghna* property. Therapeutic uses of *Vasavaleha* are *Kasa* (cough), Shvasa, Jvara, Raktapitta, Rajayaksha, Parshva shula, hrithshula. [14] *Sukshma* and *Tikshana guna* of Vasa (*Adhatoda vasica* Nees.), *Pippalli* (*Piper longum* Linn.) and Madhu (honey) help in Kaphanihsarana and remove Upalepa of Kapha in *Kantha* (throat) and *Ura* (chest). *Vatahara* drugs such as *Sita*, *Go-Ghrita* (cow ghee) and *Pippalli* cause Vatanulomana and pacifies *Vimarga Kupita Vata* caused due to *Vimargagami Prana* and Apana *Vayu*. Go-Ghrita and *Pippalli* also act on *Pitta* *Sthana* improving the function of Agni thus normalizing *Vatakarma*. This process sets right the digestion, assimilation, and metabolism. Further, *Go-Ghrita* [15] and *Pippalli* help in improving immunity of the body with their *Rasayana* (rejuvinative) effect, thus preventing the recurrences of symptoms. Vasicine and vasicinone, the bitter alkaloids of the Vasa plant, possess broncho-dilatory effect. [16]

Chandramrite rasa is a herbomineral formulation. Important therapeutic uses of Chandramrita rasa are *Kasa* (cough), Shwasa (dyspnoea, asthma), Jvara (fever), Rakta kasa (coughing up blood from the respiratory tract i.e., haemoptysis) and Adrak Swaras is its Anupana. [17] Its ingredients like *Triphala*, *Trikatu*, Maricha Parada, *Gandhaka*, *Loha bhasma*, *Tankana* and *Saindhava* possess Vatahara and Kaphahara properties and thus have special action on respiratory system disorders. It gives relief to lungs and eliminates accumulated phlegm from lungs. It helps in expelling out mucus, which is accumulated in the respiratory tract and in sinuses present in face. It has good digestive action because of its *Tikshna*, *Laghu* and *Ushna* guna. So this combination in whole is providing the properties which are necessary to treat *Vatik Kasa*. Thus helps in pacifying the symptoms of *Vatik Kasa*.

CONCLUSION

The current case series may provide leads to the management of symptoms of *Vatik Kasa* in era of COVID 19 to the patients who visited the OPD. *Abhyanga* with *Sharshap Taila* mixed with Saindhava lavan and *Vasavaleha* helps in pacifying the *Vata*. *Haritaki churna* as Anulomna Vatahara properties of *Vasavaleha* and Chandramruta rasa helps to alleviate the symptoms of *Vatik Kasa*. Internal medication to patients was given *Muhura muhura* every 2 hours along with strict *Pathya Palan*, all the three patients got immediate results within 3 days of time. Rest of the symptoms showed significant improvement within 10
days of treatment. However, the current study is limited to a few number of patients; more trials are needed to evaluate the efficacy of this treatment combination. The usage of *Vasavaleha* and *Chandramrutas* rasa along with *Haritaki churna* and *Abhyanga with Sarshapta Taila* mixed with *Saindhava lavana* and *Vashpa swedana* showed quick and highly significant improvement in the symptoms Vatik *Kasa*.

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