ISSN: 2322 - 0902 (P)
ISSN: 2322 - 0910 (O)

International Journal of Ayurveda and Pharma Research

Case Study

EFFECT OF *RASAPRAVICHARANA CIKITSA* (TASTE SPECIFIC DRUG THERAPY) IN *KAPHA* DOMINANCE OF *TAMAKA SWASA* (ASTHMA) – A CASE SERIES

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ABSTRACT

Rasapravicharana cikitsa is the administration of drugs in accordance with the *Rasam* (taste) after assessing the *Doshic* imbalance in diseases. The basic approach of Ayurveda is to normalize the *Doshas* in aggravated or depleted conditions occurred in the manifestation of disease. The objective of the study was to assess the effect of *Rasapravicharana cikitsa* (taste specific drug therapy) in aggravated *Kapha dosha* of *Kapha* dominant *Tamaka swasa* (asthma). The study was conducted on 10 patients between the age group 16 to 70 yrs of both the sexes. The patients were administered with *Katu* (pungent) *rasa* drug ie, powder of the dried fruit of *Maricham* (*Piper nigrum* Linn) at the dose of 500 mg, *Tikta* (bitter) *rasa* drug i.e., dried *Vasa* leaf powder (*Adhatoda vasica* Nees) at the dose of 3gm, and *Kashaya* (astringent) *rasa* drug i.e., powder of the dried fruit pericarp of *Haritaki* (*Terminalia chebula* (Gaertn.) Retz.) at the dose of 3gm, 8 AM and 8 PM after food daily in luke warm water respectively for a period of two weeks each.

The *Katu rasa* drug administered for 14 days produced highly significant reduction in dyspnoea, cough bout frequency, wheeze, expectoration of sputum and quantity of sputum, and significant improvement in PEFRate. But no significant improvement was observed in PEF%. The administration of *Tikta rasa* drug in the next 14 days resulted in highly significant reduction in cough bout frequency and expectoration of sputum and significant reduction in dyspnoea. The reduction was maintained in other signs and symptoms. The *Kashaya rasa* drug used in the last 14 days significantly improved PEFRate. Reduction in other signs and symptoms was maintained. The management according to *Rasapravicharana cikitsa* has a significant role in the pacification of *Doshas* involved in the manifestation of diseases.

KEYWORDS: *Tamaka swasa*, Asthma, *Rasapravicharana chikitsa*, Taste specific drug therapy.

INTRODUCTION

The fundamental approach in the treatment of diseases in Ayurveda is the management of aggravated or depleted *Doshas* by utilizing the tastes (*rasas*) of drugs. This is evident from the descriptions in the classical treatises like *Charaka Samhita*, *Susruta Samhita*, *Ashtanga samgraham*, *Ashtanga hridayam* and many more. It is the classical Ayurvedic treatise in 6th century BC *Kasyapa Saṃhita* that highlights the scientific approach with a term '*Rasapravicharana cikitsa*' to popularize the principles in the practice of this system of medicine.[1]

The term '*Rasapravicharana cikitsa*' is composed of three words - *rasa*, *Pravicharana* and *cikitsa*. Here '*rasa*' denotes the taste of the substance or drug (*Dravya*). The word '*Parvicharana*' stands for the specific or distinctive usage and '*cikitsa*' for treatment. So '*Rasapravicharana cikitsa*' is the treatment of disease with the specific usage based on the taste of drugs.

Taste is the sense of the gustatory organ, tongue. *Rasas* are six in number and they are Sweet (*madhuram*), Sour (*amla*), Salt (*lavana*), Acrid (*katu*), Bitter (*tikta*) and Astringent (*kashaya*). It is according to the taste that individuals select foodstuffs and this link of taste with the substance (*dravya*) and body (*sareera*) is responsible for the biological regulation of different systems. Hence the bioregulatory principles of the body i.e., *Doshas* - *Vata*, *Pitta* and *Kapha* - are primarily controlled by the taste of the *Dravya* used as food or medicine.

Taste or *Rasas* of substance are solely responsible for the pacification (*samana*) and aggravation (*kopana*) of *Doshas* in the body. Acharyas Charaka, Susrutha, Vagbhata and Bhavamisra described that the drugs having sweet (*madhura*), sour (*amla*) and saline (*lavana*) *Rasas* alleviate *Vata dosha*. The *Rasas* astringent (*kashaya*), sweet (*svadu*) and bitter (*tikta*) pacifies *Pitta dosha* and astringent

(*kashaya*), pungent (*katu*) and bitter (*tikta*) mitigate *Sleshma dosha*. The other *Rasas* cause aggravation of *Vata*, *Pitta* and *Kapha doshas* accordingly.[2-5]

Tamaka swasa is one among the five S*wasarogas* or respiratory diseases classified by ancient scholars of Ayurveda.[6-9] Apart from the other four *Swasarogas* - *Kshudra*, *Chinna*, *Maha* and *Urdha*, *Tamaka swasa* is caused predominantly due to the abundance of *Kapha dosha*.[10-12] Dyspnoea (*Ativega pratamyata*), cough (*Kasam*), wheeze (*khurkhurakam*), expectoration of sputum (*Sakapha khoshana*) are the important signs and symptoms of *Tamaka swasa*.[13-20] The *Lakshanas* of *Tamaka swasa* explained in Ayurvedic classics very well suites with the classical signs and symptoms of asthma described in the text books of Modern medicine. So it can be understand that *Tamaka swasa* is a type of respiratory disease in which the physiological function of respiration and exchange of air is seriously affected.[21]

Acharya Kasyapa elaborately discussed about the sequence of administration of *Rasas* in pathological condition according to the *Doshas*. In the diseases of *Kapha* dominance the physician should use the pungent (*Katu*), bitter (*Tikta*) and astringent (*Kashaya*) *rasas* in proper combination and in sequential order for the treatment. The initially used pungent taste destroys rapidly the sliminess (*paichilyam*) and heaviness (*Gouravam*) of aggravated *Kapha dosha*. Later on the bitter taste reduces (*Hrasayati*) the sweetness of mouth (*Asya Madhuryam*) and desiccates (*Samsoshayati*) the *Kapha*. The astringent taste diminishes (*Samgrahana*) and extracts unctuousness (*Sneha avakarsanam*) property of *Kapha dosha*.[22] Hence a case series study was conducted to assess the effect of *Rasapravicharana cikitsa* (taste specific drug therapy) in aggravated *Kapha dosha* of *Kapha* dominant *Tamaka swasa* (asthma).

MATERIALS AND METHODS

10 patients suffering from *Kapha* dominant *Tamaka swasa* (asthma) between the age group 16 to 70 yrs of both the sexes were selected from the OPD of the Department of Dravyaguna, Govt. Ayurveda College, Thiruvananthapuram during the period April 2016 to August 2016. Selected patients were given *Katu* (Acrid or Pungent) *rasa* drug (by means of powder of the dried fruit of *Maricham* (*Piper nigrum* Linn) at the dose of 500 mg), *Tikta* (Bitter) *rasa* drug (by means of dried *Vasa* leaf powder (*Adhatoda vasica* Nees) at the dose of 3 gm) and *Kashaya* (Astringent) *rasa* drug (by means of powder of the dried fruit pericarp of *Haritaki* (*Terminalia chebula* (Gaertn.) Retz.) at the dose of 3 gm) 8 AM and 8 PM twice daily in luke warm water respectively for a period of two weeks each.

The assessments were done by subjective and objective criteria. The subjective criteria analyzed were dyspnoea, cough bout frequency, wheeze, expectoration of sputum and functional assessment PEF % personal best. Objective criteria were quantity of sputum and Peak Expiratory Flow Rate (PEFRate). The symptoms and signs were noted on 0th day or before treatment, after 14th day of treatment, after 28th day of treatment and after 42nd day or after treatment.

The symptom dyspnoea was observed and evaluated according to the grade recommended by Medical Research Council Dyspnoea scale of United Kingdom.[23]

Grade 0: No breathlessness (Absent)

Grade 1: Not troubled by breathlessness except on strenuous exercise (Mild)

Grade 2: Shortness of breath when hurrying on the level or walking up a slight hill (Moderate)

Grade 3: Walks slower than most people on the level, stops after a mile or so, or stops after 15 minutes walking at own pace (Severe)

Grade 4: Stops for breath after walking about 100 yards or after a few minutes on level ground (Very Severe)

Grade 5: Too breathless to leave the house or breathless when dressing or undressing (Very Severe)

The frequency of cough bouts were assessed by grades and were classified as mild, moderate, severe and very severe.

Grade 0: No cough (Absent)

Grade 1: Occasional hems (Mild)

Grade 2: Less than 3 cough bouts (Moderate)

Grade 3: 3 – 7 cough bouts (Severe)

Grade 4: More than 8 cough bouts (Very Severe)

The assessment of the symptom wheeze was done according to the grades of National Heart, Lung, Blood Institute, National Institute of Health, US Department of Health and Human services.[24]

Grade 0: No wheeze (Absent)

Grade 1: Often only end expiratory (Mild)

Grade 2: Loud; throughout exhalation (Moderate)

Grade 3: Usually loud and widespread; throughout exhalation (Severe)

Grade 4: Usually loud and widespread; throughout inhalation and exhalation (Very Severe)

Based on the nature, expectoration of sputum was graded as mild, moderate, severe and very severe.

Grade 0: No expectoration of sputum (Absent)

Grade 1: Little mucoid expectoration (Mild)

Grade 2: Tenacious mucoid expectoration with traces of phlegm (Moderate)

Grade 3: Tenacious mucoid expectoration with moderately thick phlegm (Severe)

Grade 4: Viscous mucoid expectoration with large quantity of thick phlegm (Very Severe)

The symptom Peak Expiratory Flow % personal best was done according to the grades of National Heart, Lung, Blood Institute, National Institute of Health, US Department of Health and Human services.[24]

Grade 1: > 70% (>550)(Mild)

Grade 2: 40-69 % (80-550) (Moderate)

Grade 3: < 40% (50-80) (Severe)

Grade 4: < 25% (<50) (Very Severe)

The quantity of sputum expectorated in the morning was measured using a tea spoon (containing 2.5 ml) and assessed in milli litre (ml). Peak Expiratory Flow Rate (PEFRate) was measured using the equipment 'Peak Flow Meter' in the morning and was expressed in L/Min.

RESULTS AND DISCUSSION

The results of various parameters were collected and calculated the mean difference and studentized range. The statistical significance of mean difference at two weeks interval and before and treatment were compared using repeated measures ANOVA.

Table No. 1. Comparison of the effect in Dyspnoea at 2 weeks intervals and before and after treatment

Period of Treatment	Mean Difference	q	Significance	Summary	95% CI of diff
T_0 Vs T_{14}	1.3	5.448	Yes	**	0.3902 to 2.210
T_{14} Vs T_{28}	1	4.191	Yes	*	0.0902 to 1.910
T_{28} Vs T_{42}	0.4	1.676	No	ns	-0.5098 to 1.310
T_0 Vs T_{42}	2.7	11.31	Yes	***	1.790 to 3.610

Table No. 2. Comparison of the effect in Cough bout frequency at 2 weeks intervals and before and after treatment

Period of Treatment	Mean Difference	q	Significance	Summary	95% CI of diff
T_0 Vs T_{14}	1.2	5.555	Yes	**	0.3764 to 2.024
T_{14} Vs T_{28}	1.2	5.555	Yes	**	0.3764 to 2.024
T_{28} Vs T_{42}	0.6	2.777	No	ns	-0.2236 to 1.424
T_0 Vs T_{42}	3	13.89	Yes	***	2.176 to 3.824

Table No. 3. Comparison of the effect in Wheeze at 2 weeks intervals and before and after treatment

Period of Treatment	Mean Difference	q	Significance	Summary	95% CI of diff
T_0 Vs T_{14}	1.2	4.968	Yes	**	0.2792 to 2.121
T_{14} Vs T_{28}	0.7	2.898	No	ns	-0.2208 to 1.621
T_{28} Vs T_{42}	0.6	2.484	No	ns	-0.3208 to 1.521
T_0 Vs T_{42}	2.5	10.35	Yes	***	1.579 to 3.421

Table No. 4. Comparison of the effect in Expectoration of sputum at 2 weeks intervals and before and after treatment

Period of Treatment	Mean Difference	q	Significance	Summary	95% CI of diff
T_0 Vs T_{14}	1.2	6.466	Yes	***	0.4924 to 1.908
T_{14} Vs T_{28}	1.2	6.466	Yes	***	0.4924 to 1.908
T_{28} Vs T_{42}	0.4	2.155	No	ns	-0.3076 to 1.108
T_0 Vs T_{42}	2.8	15.09	Yes	***	2.092 to 3.508

Table No. 5. Comparison of the effect in Peak Expiratory Flow % personal best at 2 weeks intervals and before and after treatment

Period of Treatment	Mean Difference	q	Significance	Summary	95% CI of diff
T_0 Vs T_{14}	0.1	2	No	ns	-0.09063 to 0.2906
T_{14} Vs T_{28}	0	0	No	ns	-0.1906 to 0.1906
T_{28} Vs T_{42}	0	0	No	ns	-0.1906 to 0.1906
T_0 Vs T_{42}	0.1	2	No	ns	-0.09063 to 0.2906

Table No. 6. Comparison of the effect in Quantity of sputum at 2 weeks intervals and before and after treatment

Period of Treatment	Mean Difference	q	Significance	Summary	95% CI of diff
T_0 Vs T_{14}	7.5	8.148	Yes	***	3.991 to 11.01
T_{14} Vs T_{28}	3.5	3.803	No	ns	-0.009295 to 7.009
T_{28} Vs T_{42}	1.5	1.63	No	ns	-2.009 to 5.009
T_0 Vs T_{42}	12.5	13.58	Yes	***	8.991 to 16.01

Table No. 7. Comparison of the effect in Peak Expiratory Flow Rate (PEFRate) at 2 weeks intervals and before and after treatment

Period of Treatment	Mean Difference	q	Significance	Summary	95% CI of diff
T_0 Vs T_{14}	-71	3.911	Yes	*	-140.2 to -1.793
T_{14} Vs T_{28}	-68	3.746	No	ns	-137.2 to 1.207
T_{28} Vs T_{42}	-85	4.683	Yes	*	-154.2 to -15.79
T_0 Vs T_{42}	-224	12.36	Yes	***	-293.2 to -154.8

The *Katu rasa* drug, *Maricham* (*Piper nigrum* Linn) administered for 14 days produced highly significant reduction in dyspnoea, cough bout frequency, wheeze, expectoration of sputum and quantity of sputum, and significant improvement in PEFRate. But no significant improvement was observed in PEF%. The administration of *Tikta rasa* drug *Vasa* (*Adhatoda vasica* Nees) in the next 14 days resulted in highly significant reduction in cough bout frequency and expectoration of sputum and significant reduction in dyspnoea. The reduction was maintained in wheeze and quantity of sputum, and improvement was continued in PEFRate. The *kashaya rasa* drug *Haritaki* (*Terminalia chebula* (Gaertn.) Retz.) used in the last 14 days significantly improved PEFRate. Reduction in dyspnoea, cough bout frequency, wheeze, expectoration of sputum and quantity of sputum was maintained.

After 42 days of treatment, ie completion of treatment, a highly significant reduction was observed in dyspnoea, cough bout frequency, wheeze, expectoration of sputum and quantity of sputum, and improvement in PEFRate when compared to before treatment. No improvement was found in PEF% personal best.

The *Katu rasa*; *Laghu*, *Tikshna* and *Ruksha Gunas*; *Ushna veerya*; *Katu vipaka*; *Kaphahara* and *Vatasamana* actions, and the beneficial effects in the diseases *Swasam* and *Kasam* helped the drug *Maricham* to reduce the signs of *Kapha* aggravation and pacify the signs and symptoms of *Tamaka swasa*. The pharmacological properties and actions such as *Tikta rasa*, *Laghu guna*, *Seeta veerya*, *Katu vipaka*, *Kaphasamana* and *Pittasamana* actions, and the therapeutic effects in *Svasa* and *Kasa* diseases favored the drug *Vasa* to pacify the remaining signs of *Kapha* aggravation and signs and symptoms in *Tamaka swasa*. The drug *Haritaki* with its *Kashaya rasa*; *Laghu*, *Ruksha* and *Sara gunas*; *Ushna veerya*; *Madhura vipaka*; *Tridoshakhna karma* and the actions in the diseases *Kasam*, *Kaphaprasekam* and *Tamaka svasam* maintained the reduction of aggravated *Kapha* and pacified the signs and symptoms of *Tamaka swasa*. Due to the *Rasayana* action it improved the function of the organ, lung by increasing the PEFRate.

CONCLUSION

Disease or *Roga* is caused by the derangement of the bio regulatory principles of the body, i.e., *Doshas*. Apart from the disease pacifying action (*Roga samanatva karma*) it is the *Rasam* or

taste of the substance which is used as medicine that bring back the *Doshas* to normalcy in disease. Hence the administration of drugs according to *rasa* has a major role in the pacification of *Doshas* involved in the pathology of all diseases.

ACKNOWLEDGEMENTS

The author acknowledge Dr. Kumari Jayageetha.P.B, Associate Professor, Statistics and Demography, Dept. of Community Medicine, Govt. Medical College, Paripally, Kollam for the expert guidance and Dr. Indulekha.V.C, Assistant Professor, Dept. of Dravyaguna vijananam, Govt. Ayurveda College, Thiruvananthapuram for the valuable suggestions and support.

REFERENCES

1. Vridhajivaka. Kasyapa Samhita. Trans Tewari. P.V. Reprinted ed. Varanasi: Chowkhamba Visvabharati; 2013. Khilasthanam, Rasadosha vibhageeyam, Chapter 6. sloka 30-35; p.501.
2. Susruta. Susruta Samhita Vol. II. Trans Singhal. G.D. 1st ed. Delhi: Chowkhambha Sanskrit Pratishthan; 1982. Sutrasthanam, Chapter 42. Rasavisesavignaneeyam, sloka 4; p.202.
3. Vagbhata. Ashtangasamgraham Vol. I. Trans Srikantha Murthy. K. R. Second ed. Varanasi: Chowkhambha Orientalia; 2005. Sutrasthanam, Chapter 1. Ayushkameeya adhyaya, sloka 34; p.10.
4. Vagbhata. Ashtangahridayam Vol. I. Trans Srikantha Murthy. K. R. Reprinted ed. Varanasi: Chowkhamba Krishnadas Academy; 2007. Sutrasthanam, Chapter 1. Ayushkameeya, sloka 15; p.10.
5. Bhavamisra. Bhavaprakasa Vol. I. Trans Sreekantha Murthy. K. R. Reprint ed. Varanasi: Choukhamba Krishnadas Academy; 2008. Chapter 6-1. Misraprakarana, sloka 242; p.156.
6. Susruta. Susruta Samhita Vol. III. Trans Singhal. G. D. 2nd ed. Delhi: Chowkhambha Sanskrit Pratishthan; 2007. Uttaratantram, Chapter 51. Svasapradhishedham, sloka 5; p.386.
7. Vagbhata. Ashtangasamgraham Vol. II. Trans Srikantha Murthy. K. R. Reprinted ed. Varanasi: Chowkhambha Orientalia; 2012. Nidanasthanam, Chapter 4. Svasa-hidhma nidanam, sloka 3; p.168.
8. Vagbhata. Ashtangahridayam Vol. I. Trans Srikantha Murthy. K. R. Reprinted ed. Varanasi: Chowkhamba Krishnadas Academy; 2010. Nidanasthanam, Chapter 4. Svasa-hidhma nidanam, sloka 2; p.37.
9. Madhavakara. Madhavanidanam. Trans Sreekantha Murthy. K. R. Reprinted ed. Varanasi: Choukhamba Orientalia; 2013. Chapter 12. Hikkasvasanidanam, sloka 15; p.49.
10. Susruta. Susruta Samhita Vol. III. Trans Sharma. P. V. Reprint ed. Varanasi: Chowkhambha Visvabharati; 2005. Uttaratantram, Chapter 51. Vranaprasamanam, sloka 4; p. 514.
11. Madhavakara. Madhavanidanam. Trans Sreekantha Murthy. K. R. Reprinted ed. Varanasi: Choukhamba Orientalia; 2013. Chapter 12. Hikkasvasanidanam, sloka 15; p.49.
12. Yogaratnakara Vol. I. Trans. Madham Shetty Suresh Babu. Varanasi: Choukhamba Sanskrit Series Office; 2005. Svasaroga Sadhyaasadhyata, sloka 1; p.522.
13. Agnivesa. Charaka Samhita Vol. IV. Trans Ram Karan Sharma and Vaidya Bhagavan Das. Varanasi: Choukhamba Sanskrit Series Office; 1997. Chikitsasthanam, Chapter 17. Hikkasvasachikitsitam, sloka 56-61; p.131.
14. Susruta. Susruta Samhita Vol. III. Trans Singhal. G. D. 2nd ed. Delhi: Chowkhambha Sanskrit Pratishthan; 2007. Uttaratantram, Chapter 51. Svasapradhishedham, sloka 9-10; p. 387.
15. Vagbhata. Ashtangasamgraham Vol. II. Trans Srikantha Murthy. K. R. Reprinted ed. Varanasi: Chowkhambha Orientalia; 2012. Nidanasthanam, Chapter 4. Svasa-hidhma nidanam, sloka 9-12; p.169.
16. Vagbhata. Ashtangahridayam Vol. I. Trans Srikantha Murthy. K. R. Reprinted ed. Varanasi: Chowkhamba Krishnadas Academy; 2010. Nidanasthanam, Chapter 4. Svasa-hidhma nidanam, sloka 7-9; p.38.
17. Madhavakara. Madhavanidanam. Trans Sreekantha Murthy. K. R. Reprinted ed. Varanasi: Choukhamba Orientalia; 2013. Chapter 12. Hikkasvasanidanam, sloka 28-34; p.51.
18. Vaidya Sodhala, Gadanigraha 1-2. Trans. Indradeva Trpathi. Reprint ed. Varanasi: Choukhamba Sanskrit Sansthan; 2011. Kayachikitsa khanda, Chapter 11. Hikkasvasa adhikara, sloka 30-36; p.363-364.
19. Bhavamisra. Bhavaprakasa Vol. II. Trans Sreekantha Murthy. K. R. 4th ed. Varanasi: Choukhamba Krishnadas Academy; 2009. Chapter 14. Svasaroga adikara, sloka 15-21; p.256.
20. Yogaratnakara Vol. I. Trans. Madham Shetty Suresh Babu. Varanasi: Choukhamba Sanskrit Series Office; 2005. Poorvardha, Svasaroga, sloka 2-8; p.520.
21. Standard Treatment Guidelines in Ayurveda. New Delhi: Central Council of Indian Medicine; Nov. 2014. p.11.
22. Vridhajivaka. Kasyapa Samhita. Trans Tewari. P. V. Reprinted ed. Varanasi: Chowkhamba

Visvabharati; 2013. Khilasthanam, Rasadosha vibhageeyam, Chapter 6. sloka 24-27; p.501.

23. Stenton C. The MRC breathlessness scale. Occup Med (Lond). 2008;58(3):226-7. http://www.ncbi.nlm.nih.gov/pubmed/18441368.
24. Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma Full Report. National Asthma Education and Prevention Program, U.S Department of Health and Human Services, National Institutes of Health, National Heart, Lung,and Blood Institute. 2007 August 28; Page 380. https://www.nhlbi.nih.gov/files/docs/guidelines/asthgdln.pdf

Cite this article as:
Ansary P Y, Shajahan M A. Effect of Rasapravicharana Cikitsa (Taste Specific Drug Therapy) in Kapha Dominance of Tamaka Swasa (Asthma) - A Case Series. International Journal of Ayurveda and Pharma Research. 2018;6(8):1-6.
Source of support: Nil, Conflict of interest: None Declared

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