Research Article

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EFFICACY OF GUDADIGUTIKA AND SAMSHARKARA CHURNA IN MANAGING KAPHAJA KASA: A CONTROLLED CLINICAL STUDY

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ABSTRACT

Introduction: Kaphaja Kasa (cough due to excess Kapha) is a common respiratory ailment in Ayurveda, presenting significant discomfort and potential complications if untreated. The aim of this study was to assess the efficacy of two Ayurvedic formulations, Gudadigutika and Samsharkara Churna, in managing Kaphaja Kasa through a controlled clinical trial. Methods: A randomized controlled clinical study was conducted with 40 patients diagnosed with Kaphaja Kasa. The patients were divided into two groups: Group A received Gudadigutika (500 mg, thrice daily), and Group B received Samsharkara Churna (15 g/day, divided into three doses). Both treatments were administered for 14 days with a follow-up on the 21st day. Statistical analysis included paired t-tests for intra-group comparisons and Mann-Whitney U tests for inter-group comparisons. Results: The intra-group analysis revealed that both treatments led to statistically significant improvements in subjective symptoms of Kaphaja Kasa ($p < 0.05$). However, the comparison between Group A and Group B did not show statistically significant differences ($p > 0.05$), indicating comparable efficacy of Gudadigutika and Samsharkara Churna. Discussion: Both Gudadigutika and Samsharkara Churna proved effective in managing Kaphaja Kasa. Although no significant difference was observed between the two groups, both formulations contributed to notable symptomatic relief. Further research with larger sample sizes and long-term follow-ups is needed to explore the broader implications of these findings in Ayurvedic respiratory care.

Keywords: Kaphaja Kasa, respiratory disorder, Gudadigutika, Samsharkara Churna

INTRODUCTION

Kaphaja Kasa is a common respiratory disorder in Ayurveda characterized by excessive Kapha dosha, leading to a productive cough. According to Ayurvedic principles, Kasa (cough) can manifest as both a symptom and an independent disease. It involves an imbalance primarily of the Kapha dosha, and, if left untreated, can progress to more severe conditions.

Kaphaja Kasa, or cough due to Kapha dosha imbalance, is recognized in Ayurveda as both a symptom and an independent disease. Characterized by symptoms like productive cough, chest congestion, and difficulty breathing, it can progress to more severe respiratory conditions if untreated such as Swasa (dyspnea), Shosha (consumption), Rajyakshama (tuberculosis), and other complications. Unlike modern medicine, which often treats cough as a symptom, Ayurveda considers Kasa a primary disorder resulting from lifestyle, dietary, and environmental factors.

Kasa

The understanding of Kasa in Ayurveda goes beyond the mere presentation of cough. Classical Ayurvedic texts such as the Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya provide comprehensive insights into the pathogenesis, classification, and treatment of Kasa.[1-3] Kaphaja Kasa is specifically attributed to the aggravation of Kapha due to factors such as excessive intake of cold, heavy, and greasy foods, exposure to cold and damp environments, and suppression of natural urges. This leads to the accumulation of mucus in the respiratory tract, causing symptoms such as productive cough, throat irritation, and chest congestion.

The therapeutic approach in Ayurveda for managing Kaphaja Kasa focuses on restoring the balance of Kapha and Vata doshas through dietary modifications, lifestyle changes, and herbal medications. Herbal formulations such as Gudadigutika[4] and Samsharkara Churna[5] have been traditionally used for their effectiveness in alleviating symptoms of Kaphaja Kasa. These formulations consist of herbs known for their Kapha-balancing properties, including expectorant, bronchodilator, anti-inflammatory, and immunomodulatory effects [6-8]

The study titled "A Controlled Clinical Study on the Efficacy of Gudadigutika and Samsharkara Churna (Powder) in the Management of Kaphaja Kasa" to evaluate the efficacy of two Ayurvedic formulations, Gudadigutika and Samsharkara Churna, in treating Kaphaja Kasa. The study also compares the two formulations to determine which might offer better clinical outcomes.

Rationale: In developing and developed countries, Medicine outdoor patient department (OPD) have more than 50% of patients having respiratory tract complaints.[9,10] Respiratory disorders such as cough and bronchitis are highly prevalent in

both developing and developed countries. Conventional treatments often include antitussives, expectorants, and bronchodilators, which may have side effects and do not address the root causes of the disease. Ayurveda offers alternative therapies that target the underlying dosha imbalance, promoting holistic healing. This study aims to provide scientific evidence for the efficacy of traditional Ayurvedic medicines in managing Kaphaja Kasa.

Objectives

1. To evaluate the clinical effectiveness of Gudadigutika in treating Kaphaja Kasa.
2. To compare the efficacy of Gudadigutika with Samsharkara Churna in managing Kaphaja Kasa.

MATERIALS AND METHODS

Study Design: This is an open, randomized controlled clinical study conducted over 21 days. Forty patients diagnosed with Kaphaja Kasa, based on clinical symptoms such as productive cough, were selected and randomly assigned to two groups:

- **Trial Group A:** 20 patients were administered Gudadigutika (500 mg tablet, three times a day after food with water).
- **Control Group B:** 20 patients were administered Samsharkara Churna (15 grams daily, divided into three doses after food with honey).

The study was carried out as per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants. Ethical Clearance was obtained from Institutional ethical clearance committee prior to the study.

Inclusion Criteria

- Patients aged 18-60 years diagnosed with Kaphaja Kasa.
- Patients exhibiting classic symptoms of Kaphaja Kasa (e.g., productive cough, heaviness in the chest, and white sputum).
- Patients who consented to participate in the study.

Exclusion Criteria

- Patients with other types of cough (e.g., Vataja, Pittaja).
- Patients with severe comorbid conditions such as tuberculosis, malignancy, or severe respiratory illnesses.
- Pregnant or lactating women.
- Patient having hypersensitive to any drugs.

Assessment Criteria

Subjective Parameter

Table 1: Kasavega

Bouts of Cough	Grade
Absent bouts of cough	Grade 0
Occasional bouts of cough in 3-12 h interval	Grade 1
Frequent bouts of cough in 1-3 h interval	Grade 2
Continuous bouts of cough in 1-2 h interval	Grade 3

Table 2: Mandagni

Mandagni (Low digestive fire)	Grade
Huger after 4 h of 1st meal in a day	Grade 0
Hunger after 6 h of 1st meal in a day	Grade 1
Hunger after 8 h of 1st meal in a day	Grade 2
Hunger after 12 h of 1st meal in a day	Grade 3

Table 3: Aruchi

Aruchi (Anorexia)	Grade
Willing toward normal food	Grade 0
Willing toward few varieties of food but not all	Grade 1
Unwilling toward food but could take food	Grade 2
Totally unwilling for food	Grade 3

Table 4: Peenasa

Peenasa (Nasal Discharge)	Grade
No nasal discharge	Grade 0
Occasional nasal discharge	Grade 1
Frequent nasal discharge	Grade 2
Continue nasal discharge	Grade 3

Table 5: Nishthivan

Nishthivan (Sputum)	Grade
No productive cough	Grade 0
Serous expectoration with thick sputum	Grade 1
Mild itching of throat and swallowing with difficulty	Grade 2
Severe itching of throat and unable to swallow	Grade 3

Table 6: Kantha Kandu

Kantha Kandu (Itching)	Grade
Absent of discomfort in throat	Grade 0
Discomfort in throat but swallowing not hampered	Grade 1
Mild itching of throat and swallowing with difficulty	Grade 2
Severe itching of throat and unable to swallow	Grade 3

Table 7: Phonation (Swara)

Phonation (Swara)	Grade
Not affected	Grade 1
Change in voice during morning h and pain in throat during speech	Grade 2
Change in voice throughout day and night and able to speak only in phrases	Grade 3
Unable to speak	Grade 4

Table 8: Wheezing Sound (Adradhvani)

Wheezing Sound (Adradhvani)	Grade
Wheezing sound absent	Grade 1
Present in 1 or 2 zones of chest	Grade 2
Distributed here and there in the chest	Grade 3
Distributed all over chest	Grade 4

Table 9: Overall assessment of the result

Relief of symptoms	Score
Good Improvement	76-100 % Relief
Moderate Improvement	51-75 % Relief
Mild Improvement	25-50 % Relief
No Improvement	Less than 25% Relief

Plan of Work

Gudadigutika: A formulation comprising herbs like Haritaki, Sunthi (dry ginger), and Mustha, known for their Kapha-balancing and anti-tussive properties.

Samsharkara Churna: An herbal powder containing ingredients with similar properties designed to alleviate cough and respiratory symptoms.

Dosage and Duration

Gudadigutika: 500 mg tablet, three times daily, post meals, with water for 14 days.
Samsharkara Churna: 15 grams daily (divided into three doses), post meals, with honey for 14 days.
Follow-up period: 7 days after the completion of the 14-day treatment.

OBSERVATIONS AND RESULTS

Demographic Data: Total Participants: The study included 40 patients diagnosed with Kaphaja Kasa, who were randomly assigned into two groups:

Gender
Group A (Gudadigutika): 20 patients (12 males, 8 females).
Group B (Samsharkara Churna): 20 patients (11 males, 9 females).

Age Distribution: Patients were primarily between 18-60 years, with an average age of around 35 years. Both groups were comparable in age distribution, ensuring a balanced representation across different age ranges. Younger patients (18-40 years) showed a slightly faster initial response to treatment in both groups, though by the end of the study period, patients across all age ranges demonstrated comparable improvement.

Socio-Economic Status: Patients from varied socio-economic backgrounds were included to enhance the generalizability of the study results. Both groups had a similar mix of patients from low, middle, and high socio-economic statuses.

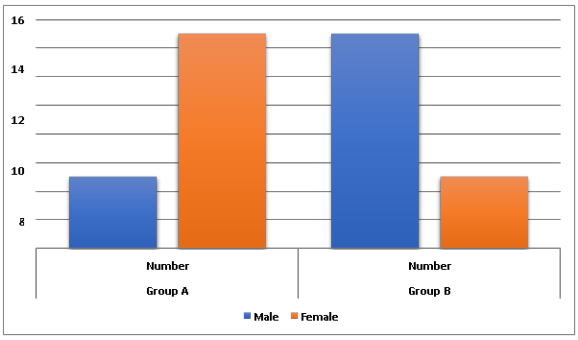

Chart 1: Gender

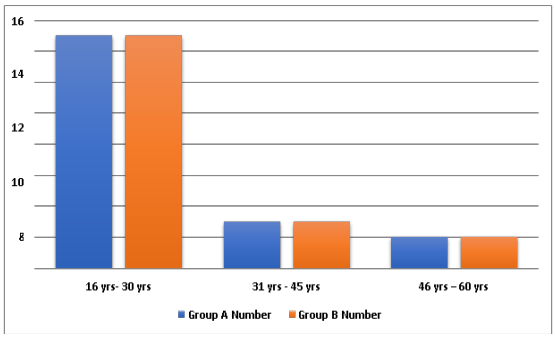

Chart 2: Age Distribution

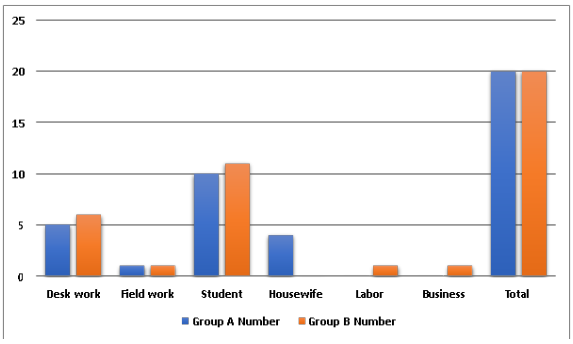

Chart 3: Occupation

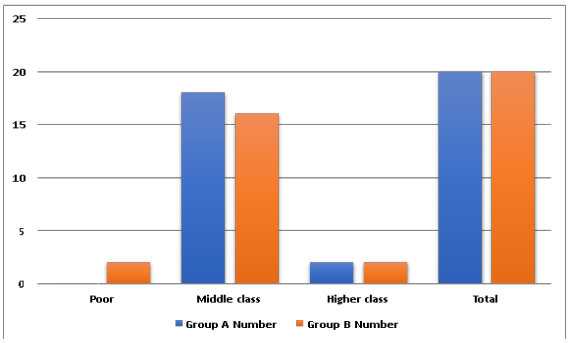

Chart 4: Socio-Economic Status

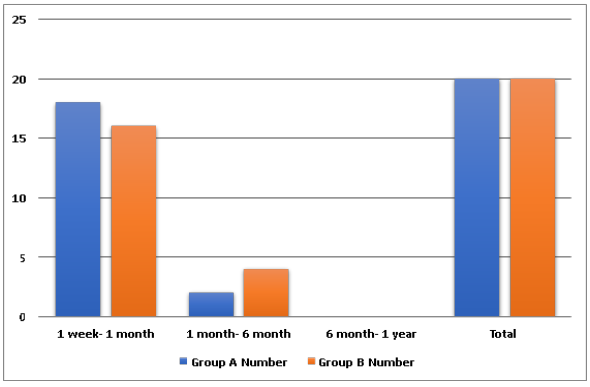

Chart 5: Chronicity

Subjective Parameters

Table 10: Statistical analysis of subjective parameters of group A (BT-AT)

Parameter	Mean		MD	Reliefrate	SD	SE	t- value	p-value	Remark
	BT	AT							
Kasavega	2.95	1.8	1.15	39.16%	0.36	0.082	14.02	<0.00001	H.S
Mandagni	1.6	0.6	1	65.83%	0.45	0.103	9.70	<0.00001	H.S
Aruchi	1.4	0.7	0.7	52.55%	0.47	0.107	6.54	<0.00001	H.S
Peenasa	2.25	1.3	0.95	45.83%	0.39	0.089	10.67	<0.00001	H.S
Nishthivana	2.45	1.5	0.95	40%	0.51	0.117	8.11	<0.00001	H.S
Kanthakandu	1.75	0.8	0.95	55%	0.51	0.117	8.11	<0.00001	H.S
Phonation (Swara)	1.35	0.4	0.95	74.16%	0.51	0.117	8.11	<0.00001	H.S
Wheezing Sound	1.15	0.55	0.6	34.16%	0.68	0.156	3.84	0.0010	S

BT: Before Treatment, AT: After Treatment

Table 11: Statistical analysis of subjective parameters of group A (BT-AF)

Parameter	Mean		MD	Relief rate	SD	SE	t- value	p-value	Remark
	BT	AF							
Kasavega	2.9	1.15	1.75	61.66%	0.43	0.098	17.85	<0.00001	H.S
Mandagni	1.85	0.6	1.25	67.5%	0.63	0.142	8.80	<0.00001	H.S
Aruchi	1.6	0.35	1.25	73.33%	0.63	0.142	8.80	<0.00001	H.S
Peenasa	2.3	0.9	1.4	63.33%	0.50	0.114	12.28	<0.00001	H.S
Nishthivana	2.7	1.2	1.5	55.83%	0.51	0.110	13.63	<0.00001	H.S
Kanthakandu	2	0.2	1.8	90%	0.61	0.139	12.94	<0.00001	H.S
Phonation (Swara)	1.5	0.3	1.2	65%	0.83	0.190	6.31	<0.00001	H.S
Wheezing Sound	1.25	0.35	0.9	42.5%	0.91	0.208	4.32	0.00036	S

BT: Before Treatment, AT: After Treatment

Table 12: Statistical analysis of subjective parameters of group B (BT-AT)

Parameter	Mean		MD	Reliefrate	SD	SE	t- value	p-value	Remark
	BT	AT							
Kasavega	2.95	1.8	1.15	39.16%	0.36	0.082	14.02	<0.00001	H.S
Mandagni	1.6	0.6	1	65.83%	0.45	0.103	9.70	<0.00001	H.S
Aruchi	1.4	0.7	0.7	52.55%	0.47	0.107	6.54	<0.00001	H.S
Peenasa	2.25	1.3	0.95	45.83%	0.39	0.089	10.67	<0.00001	H.S
Nishthivana	2.45	1.5	0.95	40%	0.51	0.117	8.11	<0.00001	H.S
Kanthakandu	1.75	0.8	0.95	55%	0.51	0.117	8.11	<0.00001	H.S
Phonation (Swara)	1.35	0.4	0.95	74.16%	0.51	0.117	8.11	<0.00001	H.S
Wheezing Sound	1.15	0.55	0.6	34.16%	0.68	0.156	3.84	0.0010	S

BT: Before Treatment, AT: After Treatment

Table 13: Statistical analysis of subjective parameters of group B (BT-AF)

Parameter	Mean		MD	Reliefrate	SD	SE	t- value	p-value	Remark
	BT	AF							
Kasavega	2.95	1.15	1.8	60.83%	0.61	0.139	12.94	<0.00001	H.S
Mandagni	1.6	0.4	1.12	75.83%	0.52	0.119	9.41	<0.00001	H.S
Aruchi	1.4	0.55	0.85	57.5%	0.67	0.153	5.55	0.00002	H.S
Peenasa	2.25	1.1	1.15	53.33%	0.58	0.133	8.64	<0.00001	H.S
Nishthivana	2.45	1	1.45	60%	0.68	0.156	9.29	<0.00001	H.S
Kanthakandu	1.75	0.35	1.4	77.5%	0.59	0.135	10.37	<0.00001	H.S
Phonation (Swara)	1.35	0.25	1.1	84.16%	0.55	0.126	8.73	<0.00001	H.S
Wheezing Sound	1.15	0.4	0.75	44.66%	0.71	0.162	4.62	0.0008	S

BT: Before Treatment, AT: After Treatment

Table 14: Statistical analysis of comparison between group A& group B (BT-AT)

Parameter	Sum ofranks	Mean ofranks	SD	U-value	Z-value	p-value	Remarks
Kasavega	820	20.5	36.96	190	0.256	0.794	N.S
Mandagni	820	20.5	36.96	173	-0.716	0.471	N.S
Aruchi	820	20.5	36.96	163	0.987	0.322	N.S
Peenasa	820	20.5	36.96	154	1.230	0.218	N.S
Nishthivana	820	20.5	36.96	173.5	0.703	0.483	N.S
Kanthakandu	820	20.5	36.96	147.5	1.406	0.158	N.S
Phonation (Swara)	820	20.5	36.96	199	-0.013	0.992	N.S
Wheezing Sound	820	20.5	36.96	191	0.229	0.818	N.S

BT: Before Treatment, AT: After Treatment

Table 15: Statistical analysis of comparison between group A & group B (BT-AF)

Parameter	Sum of ranks	Mean ofranks	SD	U-value	Z-value	p- value	Remarks
Kasavega	820	20.5	36.96	195	-0.127	0.904	N.S
Mandagni	820	20.5	36.96	188.5	0.291	0.764	N.S
Aruchi	820	20.5	36.96	138	1.663	0.096	N.S
Peenasa	820	20.5	36.96	148	1.393	0.164	N.S
Nishthivana	820	20.5	36.96	190	0.256	0.794	N.S
Kanthakandu	820	20.5	36.96	138	1.663	0.096	N.S
Phonation (Swara)	820	20.5	36.96	179	0.554	0.582	N.S
Wheezing Sound	820	20.5	36.96	184.5	0.405	0.681	N.S

BT: Before Treatment, AT: After Treatment

Overall Assessment of the Result: The total effect of therapy was grouped according to observation of all sign, symptoms.and after 14 days treatment of each patient with the help of above score role of the drugwas determined as

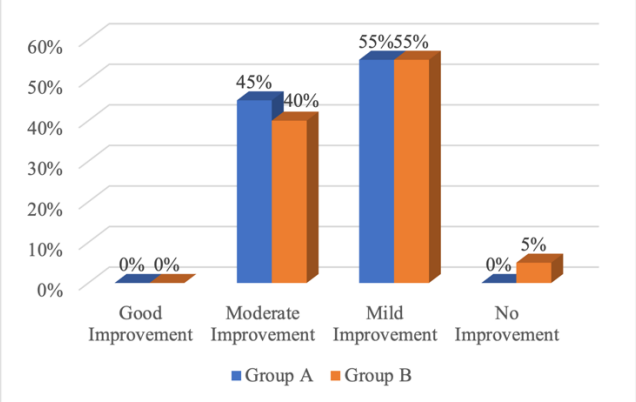

Chart 5: Overall effect of treatment of Group A & B

Overall Symptom Relief

Group A (Gudadigutika): 70% of patients reported substantial relief from symptoms such as chest congestion, heaviness, and difficulty breathing by Day 21.

Improvements were also noted in subjective parameters like energy levels, overall well-being, and quality of life.

Group B (Samsharkara Churna): 68% of patients experienced significant symptom relief, including reduced chest heaviness and better respiratory function.

Overall patient-reported outcomes were similar to those in Group A, with most patients reporting an enhanced sense of well-being and reduced discomfort.

Safety and Tolerability: Both Gudadigutika and Samsharkara Churna were well-tolerated by all patients.

No adverse effects or complications were reported during the study period.

No significant differences in tolerability were observed between the two groups, indicating that both formulations are safe for use in managing Kaphaja Kasa.

Statistical Analysis

Within-Group Comparisons: Both groups (A and B) showed statistically significant improvements in the primary outcome measures (cough severity and sputum production) from baseline to Day 21 ($p<0.05$).

Improvements in secondary outcomes (such as quality of life and overall well-being) were also statistically significant within each group.

Between-Group Comparisons: The Mann-Whitney U test showed no statistically significant difference in efficacy between the two groups ($p>0.05$). This indicates that both Gudadigutika and Samsharkara Churna are equally effective in managing Kaphaja Kasa.

The statistical similarity in patient-reported outcomes suggests that both treatments provide comparable levels of symptom relief and improvement in quality of life.

DISCUSSION

The present study aimed to evaluate the efficacy of Gudadigutika and Samsharkara Churna in managing Kaphaja Kasa, a cough caused by the vitiation of Kapha dosha in Ayurveda. The discussion covers several essential aspects of the clinical study, including an overview of Kaphaja Kasa, the properties and roles of the drugs used, the clinical observations, and a detailed examination of the results.

Kaphaja Kasa

Cough (Kasa) is a common and widely prevalent condition that affects individuals across all age groups and socio-economic strata. It is influenced by environmental factors such as pollution, allergens, smoke, dust, and weather conditions, making it difficult to avoid in daily life.

In Ayurveda, Kaphaja Kasa is described as both an independent disease and a symptom of other conditions. The etiological factors mentioned in classical texts, such as Charaka Samhita,

include excessive intake of heavy, cold, and greasy foods, exposure to cold and damp environments, and suppression of natural urges. These factors cause an imbalance in the Kapha dosha, resulting in symptoms like a productive cough, chest congestion, and difficulty breathing.

In modern science, Kaphaja Kasa can be compared to chronic bronchitis, where the pathogenesis involves the hyperplasia of mucus glands, secretion of excess mucus, and obstruction of small airways, leading to cough and sputum production. The obstruction caused by mucus plugs parallels the Kapha accumulation described in Ayurveda.

Drugs (Gudadigutika and Samsharkara Churna)
The Ayurvedic formulations Gudadigutika and Samsharkara Churna were chosen for their well-known efficacy in managing respiratory conditions, particularly those related to Kapha dosha. The references for these formulations are found in Sharngdhara Samhita and Bhavprakasha.

Gudadigutika contains Shunthi (dry ginger), Haritaki, Mustha, and Guda (jaggery). These herbs possess properties such as Kasahara (anti-cough), Shwasahara (anti-asthmatic), and Kaphaghna (Kapha-reducing). The combination works by breaking down Kapha, promoting digestion (Deepana), and facilitating the expulsion of mucus.

Samsharkara Churna includes Lavanga (clove), Jatiphala (nutmeg), Pippali (long pepper), Maricha (black pepper), Shunthi, and Sharkara (sugar). These ingredients enhance digestion, reduce Kapha, and possess expectorant properties. They also act as a Rasayana (rejuvenator), improving respiratory function and reducing cough and phlegm.

Both formulations, through their Rasa (taste), Guna (qualities), Virya (potency), and Vipaka (post-digestive effect), exhibit therapeutic actions that alleviate Kaphaja Kasa by reducing excess mucus, improving digestion, and restoring balance in the body's doshas.

Clinical Study and Observations: The clinical study involved 40 patients diagnosed with Kaphaja Kasa, divided into two groups: Group A received Gudadigutika, and Group B received Samsharkara Churna. The study aimed to evaluate the clinical effectiveness of both formulations and compare their results.

Patients were evaluated based on their symptoms, such as cough frequency, sputum production, and associated complaints like chest heaviness, difficulty breathing, and wheezing. Most patients had a history of consuming Kapha-aggravating foods such as heavy, oily, and sweet foods. The study also observed that individuals with weak digestion (Mandagni) were more prone to developing Kaphaja Kasa, emphasizing the role of digestive fire in maintaining respiratory health.

Observations in Relation to Demographic Factors
Age: The majority of the patients were aged between 16-30 years, accounting for 75% of the study population, followed by 31-45 years (15%) and 46-60 years (10%). Kaphaja Kasa was found to affect all age groups.
Sex: An equal distribution of male and female patients (50% each) was observed, suggesting no gender predisposition for Kaphaja Kasa.
Occupation: Most patients were students or engaged in sedentary desk work, highlighting the potential impact of lifestyle and poor dietary habits in triggering Kapha-related disorders.
Dietary Factors: All patients had dietary habits that contributed to the aggravation of Kapha, such as the consumption of heavy, greasy, and sweet foods. The study emphasized the role of diet in the pathogenesis of Kaphaja Kasa.

Effect of Treatment on Symptoms
Kasavega (Cough Frequency): Both groups showed a significant reduction in cough severity after treatment. Group A (Gudadigutika) saw 14 patients improve from grade 3 or 2 to grade 1 or 0, while Group B (Samsharkara Churna) observed similar improvements.
Mandagni (Weak Digestion): Patients in both groups experienced significant improvements in digestion, with more patients in grade 1 or 0 post-treatment. Mandagni improved significantly in both groups, as digestive strength plays a crucial role in managing Kaphaja Kasa.
Other Symptoms (Aruchi, Peenasa, Nishthivana, Kanthakandu, Phonation, Wheezing): Both Gudadigutika and Samsharkara Churna were effective in reducing these symptoms. For instance, Peenasa (nasal discharge) and Nishthivana (excessive salivation) showed marked improvements in most patients by the end of the treatment and follow-up periods.

Overall Results
Both Gudadigutika and Samsharkara Churna demonstrated highly significant effects in reducing the symptoms of Kaphaja Kasa.

The statistical comparison between the two groups revealed no significant difference in efficacy, indicating that both treatments were equally effective in managing the condition.

CONCLUSION

Kaphaja Kasa, similar to Chronic Bronchitis, is common in people aged 20-60, affecting both genders equally, especially those with poor digestion (Mandagni). The study involved 40 patients divided into two groups: Gudadigutika (Group A) and Samsharkara Churna (Group B). Both formulations are traditional Ayurvedic remedies for Kapha-related respiratory issues, showing significant improvements in symptoms like cough, sputum, and chest congestion. Major causes include heavy, sweet foods and sedentary lifestyle habits.

Both treatments were highly effective, with no significant difference in outcomes between the groups.

Limitations
Small sample size (40 patients) limits the generalizability of the findings.
The short duration of follow-up (7 days) may not fully capture long-term effects.
Further studies with larger sample sizes and longer follow-up periods are recommended to validate these findings.

REFERENCES

1. Kaviraj Ambikadatta Shastri, Sushruta Samhita, Uttartantra, 19th edition 2009, Chaukhamba Sanskrit Sansthan, chapter 52nd /4,5 p. 465.
2. Prof. K. R. Srikantha Murthy, Ashtanga Samgraha of Vagbhata Volume 2nd , 1st edition 1996, Chaukhamba Orientalia Varanasi, Nidana Sathana Chapter3rd/24, p 162 to 167.
3. Prof. K. R. Srikantha Murthy, Ashtanga Samgraha of Vagbhata Volume 2nd , 1st edition 1996, Chaukhamba Orientalia Varanasi, Nidana Sathana Chapter 3rd/19,20. p 162 to 167.
4. Dr. Brahmanand Tripathi, Ashtanga Hridaya of shri Vagbhata with Hindi Commentary, reprint 2007, Chaukhamba Sanskrit

Sansthan, Delhi, Nidana Sthana, 3/36,37 p 453.
5. Prof. Yadunandana Upadhyaya, Madhava Nidana of Shri Madhavakara part 1st , reprint ed. 2009, Chaukhamba Prakashan, 11/14-15 P 314.
6. Dr. smt. Shailaja Shrivastav, Sharangdhara Samhita of Sharangdhara, Edition- 3rd – 2003, Chaukhamba Orientalia Varanasi, purva khanda, chapter 5th P 45.
7. Prof. P. V. Sharma, Dravyaguna vijnana vol 2nd, edition 1st, 1998, Chaukhamba Bharati academy Varanasi, Chapter 9th, p 753 to 758.
8. Prof. P. V. Sharma, Dravyaguna vijnana vol 2nd, Chapter 9th, ed.1st, 1998,Chaukhamba Bharati academy Varanasi, p 331 to 333 & 370 to 372.
9. Kaviraj Ambikadatta Shastri, Sushruta Samhita with Ayurveda Tatva Sandipika, reprint ed.- 2005, Chaukhamba Sanskrit sansthana, Sutrasthana, chapter 15/15, p 85.
10. Dr. Vaibhav Dadu, 2007, Ayurvedic concept and management of anemia. A novel approach, Munchi, GRIN Verlag, www.grin.com/document/303332.

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