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Research Article

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CLINICAL EVALUATION OF PATOLADI KASHAYA IN AMAPACHAN

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ABSTRACT
Human beings, in order to adjust themselves in the modest era, have been compelled to become fast and mechanical. This is the reason why they can't give proper attention to daily and seasonal regimes, exercise and diet. This change in lifestyle is responsible for replacement of Shad-rasatmak Ahara by preserved and fast foods, bakery products, shift duties (i.e.Ratree Jagran), stress. All these things making them more and more susceptible for diseases generated by Agnimandya. According to them Mandagni is root cause of every disease. Due to this Mandagni Ahara-Pachan Kriya gets affected leading to production of Sama Ahara-Rasa which ultimately causes the Rasa Dhatwagni Mandya and Uttarottar Dhatu remains malnourished. Agni plays the key role in the process of bio-transformation. This is the reason why Ayurvedic Samhitas has given a lot of importance to Agni. The Ayu, Varna, Bala, Swasthya, Utsah, Buddhi, Kanti, Oja, Teja and Prana of human beings mainly depend on the status of Agni, because of this Agni should be kept in its Prakrit state.
This study was designed to evaluate the role of Patoladi Kashya (Patol, Kutaja, Devdaru, Triphala, Musta, Draksha, Yashtimadhu, Guduchi, Vasa) in Amapachan. This was a prospective randomized active control trial. A total of 60 participants showing classical symptoms of Ama between 20 and 60 years of age were randomly assigned to receive treatments. One group received Patoladi Kashaya while another group received Panchakola Kashaya. Both groups practiced supervised intervention for 3 weeks. The signs and symptoms like Mandagni, Shthivan, Daurbalya, Arohen Shwas, Pandutwa, Hridspandan, AkshikutaShotha, Angamarda were graded and interpreted at the end of the trial.
The result was found effective for treating Mandagni, Shthivan, Daurbalya, Arohen Shwas, Pandutwa, Hridspandan, Akshikuta Shotha, Angamarda of Amapachan in the group treated with Patoladi Kashaya. The results for the above criteria for the assessment were found statically highly significant. Thus, we can conclude that Patoladi Kashaya is highly effective in Amapachan.
KEY WORDS: Mandagni, Shthivan, Daurbalya, Arohen Shwas, Pandutwa, Hridspandan, AkshikutaShotha, Angamarda

INTRODUCTION

Humans get nutrition mainly from food. To make the food substances suitable for digestion, absorption and assimilation the ingested food must be processed in particular manner by the body. Agni plays the key role in the process of bio-transformation. This is the reason why Ayurvedic Samhitas has given a lot of importance to Agni. The Bala, Arogya, Ayu and Prana are mainly dependant on Agni, because of this Agni should be kept in its Prakrit state.

In the modern era of fast developing technology, industrialization and increasing population have made the life very fast and full of stress. To adjust in such an outfit people are compelled to change their life style, even food habits and types of food. In all these conditions, digestive system is the major victim. Fast foods, consumption of food substances grown under high concentration of fertilizers greatly reduces the nutritional value of our food. On the other hand, poor people can't afford the nutritional rich diet. So, the people of higher, middle and lower economic classes all are suffering from vitiation of Agni under different circumstances.

The Ayu, Varna, Bala, Swasthya, Utsah, Buddhi, Kanti, Oja, Teja and Prana of human beings mainly depend on the status of Agni. If Agni especially Pachakagni i.e. Jatharagni ceases, life will be endangered, on the other hand vikrit Agni gives rise to several disorders. This is the reason why Acharya Charak has stated that Agni is root cause of all above. Broadly, Agni can be divided in three major categories:-

1. Pachakagni.
2. Dhatwagni.
3. Bhutagni.

Out of above 3 categories, Pachkagni superseeds other two Agnis. If Pachakagni is hampered it will results in formation of improper Rasadhatu. In Ayurvedic texts, decrease in the intensity of Agni has been termed as Agnimandya. Because Agni performs several vital functions in our body, the decrease in the intensity of Agni causes several diseases.

In our day to day life often patients don't have even time to observe whether they are hungry or not. They just take food whenever they got time according to their Job schedule. They are not aware of the status of their 'Agni'. Continue Hetusevan subseqently enhance the pathogenesis and results in Vikrit Agni i.e. Agnimandya, which then leads to several severe diseases. Hence it is important to treat the diseases in very early stage. In any diseased condition, digestion and absorption of the given medicine is dependent on Agni. So it is an important task to treat Agnimandya first. Since Jatharagni is the most important factor out of all Agnis, while treating Agnimandya, Jatharagni must be considered as a matter of prime importance.

Acharya Charak has mentioned that Pachakagni is considered as a Pradhan Agni, it is a Mula of other Agnis. The Kshaya, Vriddhi of other Agnis depends upon it. Due to this by taking proper Annapan, one should protect his Panchkagni. Because of this reason, I have focused my study only over Jatharagni. If Jatharagni is corrected, there will be proper action of Bhutagni and Dhatwagni on Annarasa and consecutively normal formation of Dhatus. Finally it will result in the restoration of Ayu, Varna, Bala, Swasthya, Utsah, Buddhi, Kanti, Oja, Teja, Prana etc.

Aim

This study was designed to evaluate the role of Patoladi Kashaya (Patol, Kutaja, Devdaru, Triphala, Musta, Draksha, Yashtimadhu, Guduchi, Vasa) in Amapachan.

MATERIALS AND METHODS

Study Drug – Patoladi Kashaya

1. Patol - *Trichosanthes dioica*
2. Indrayava -*Holarrhena antidysenterica*
3. Devdaru - *Cedrus deodara*
4. Triphala - A. Haritaki- *Terminalia chebula*
   B. Bibhitaka-*Terminalia belerica*
   C. Amalaki -Emblica offinicalis.
5. Musta - *Cyperus rotundus*
6. Draksha - *Vitis vinifera*
7. Yashtimadhu - *Glycerrhiza glabra*
8. Amruta -*Tinospora cordifolia*
9. Vasa - *Adhatoda vasica*

Groups for study

Group A: - Patients treated only with Patoladi Kashaya = 30 patients.

Group B: - Patients treated only with Panchakola Kashaya = 30 patients.

Inclusive Criteria

The patients of age group 20 to 60 years were randomly selected for the study irrespective of their sex, caste, marital status and economic class. The patients having following signs / symptoms were included for study:

Mandagni (Anorexia)
Shthivan (Increased salivation)
Daurbalya (General debility)
Arohen Shwas (Dyspnoea)
Pandutwa (Pallor)
Hridspandan (Palpitation)
AkshikutaShotha(Periorbital oedema)
Angamarda(Bodyache)

The emphasis was made especially on the Vaidya Samvedya Lakshnas of Agnimandya.

Exclusive Criteria

Patients having any type of cancer especially associated with gastrointestinal tract, pancreas and liver were excluded from study. Patients having bleeding disorders like Raktapradar, Raktapitta, Raktarsha etc were excluded from study. Patients having further upadravas like Hridrog, Sarvangashotha, Udar, Kamala etc were excluded from study.

Route of Administration - Oral.

Dose - Group A - Patoladi Kashaya 40 ml BD
Group B - Panchakola Kashaya 40 ml BD

Aushadhi seven kala - Pragbhakta - For both groups

Duration - 21 days

Criteria for assessment of results

Mandagni

Table 1: Patient has loss of appetite (i.e. anorexia)

Lakshana	Grade	Meaning
Mandagni	0	No impairment in sensation of appetite or quantity of meal
	1	Abhyvaharan - Quantity of meal decreased to 1/2 of the normal routine diet. Jaran - Sensation of appetite 4 to 7 hrs after meals.
	2	Abhyavaharan - Quantity of meal decreased to 1/4th of normal routine diet. Jaran - Sensation of appetite 8 to 11 hrs after meals.
	3	Patient has no sensaton of appetite at all.

Shthivan

Table 2: Patient has feeling of increased salivation

Lakshana	Grade	Meaning
Shthivan	0	Normal salivation required to keep oral cavity moisten)
	1	No impairment in sensation of appetite or quantity of meal
	2	Patient has feeling of salivation at any time of day
	3	Patient has feeling of salivation whole the day.

Daurbalya

Table 3: Patient has feeling of general debility.

Lakshana	Grade	Meaning
Daurbalya	0	absence of symptom
	1	mild
	2	moderate
	3	severe

Arohen Shwas

Table 4: Dyspnoea on exertion

Lakshana	Grade	Meaning
Arohen Shwas	0	Absence of symptom.
	1	Patient gets dyspnoeac after climbing 30 stairs
	2	Patients gets dyspnoeac after climing 20 stairs
	3	Patients get dyspnoeac after climbing 10 stairs.

Pandutwa

Table 5: Patients has loss of luster of skin, eyes etc. (Pallor)

Lakshana	Grade	Meaning
Pandutwa	0	Absence of symptom
	1	Mild pale
	2	Moderate pale
	3	Markedly pale (severe)

Hridspandan

Table 6: Patient has awareness of his heart beats (i.e. Palpitation)

Lakshana	Grade	Meaning
Hridspandan	0	No awareness of heartbeats
	1	Patient has palpitation after exertion or climbing stairs lasting for 2-5 mins.
	2	Patient has palpitation after exertion or climbing stairs lasting for 5-8 mins
	3	Patient has palpitation during doing routine work or even at rest lasting for 8-10 mins.

Akshikuta Stotha

Table 7: Periorbital oedema

Lakshana	Grade	Meaning
Akshikuta Stotha	0	Absence of symptom
	1	Mild oedema
	2	Moderate oedema
	3	Severe oedema

Angamard

Table 8: Patient has feeling of body ache

Lakshana	Grade	Meaning
Angamard	0	Absence of symptom
	1	Mild
	2	Moderate
	3	Severe

Sam /Niram Mala Parikshana was done on each follow-up and the criteria was

0 = Niram
\+ = Mild Sam
++ = Moderate Sam
+++ = Severe Sam

Sam /Niram Mutra Parikshana was done on each follow-up and the criteria was

0 = Niram
\+ = Mild Sam
++ = Moderate Sam
+++ = Severe Sam

Jivha Samata Pariksha was done on each follow-up. The criteria was

0 = Niram (i.e. clean Tongue).
\+ = Slightly coated Tongue.
++ = Centrally or Peripherally deeply coated Tongue.
+++ = Completely (i.e. Centrally and Peripherally) deeply coated Tongue.

Gradation of Upashaya –Anupashaya

Table 9

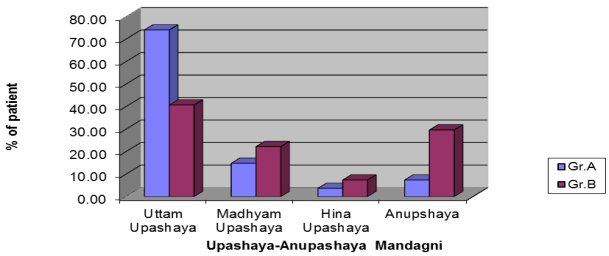
1	75% to 100% relief from Lakshana	Uttam Upashaya
2	50% to 74% relief from Lakshana	Madhyam Upashaya
3	25% to 49% relief from Lakshan	Alpa Upashaya
4	< 25% relief or no relief from Lakshana	Anupashaya

RESULTS

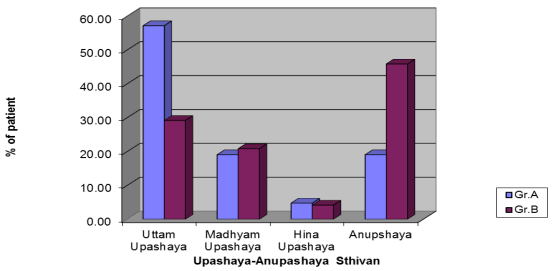
The results were found effective for treating Mandagni, Shthivan, Daurbalya, Arohen Shwas, Pandutwa, Hridspandan, AkshikutaShotha, Angamarda of Amapachan in both the groups treated with Patoladi Kashaya and Panchakola Kashaya. The results for the above criteria for the assessment were found statically highly significant before and after the treatment.

Table 10: showing result on the basis of Upashaya – Anupashaya in Group A

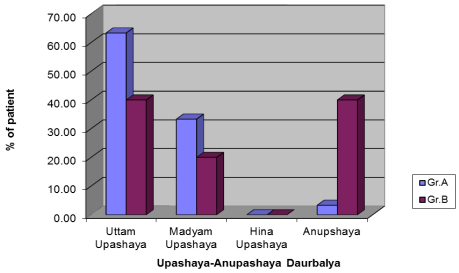
S.N	Lakshana	Gr	Upashaya						Anupashaya		Total no of pts.
			Uttam		Madhyam		Alpa				
			NP	%	NP	%	NP	%	NP	%	
1	Mandagni	A	20	74.07	04	14.81	01	03.70	02	07.40	27
		B	11	40.74	06	22.22	02	07.40	08	29.63	27
2	Shthivan	A	12	57.14	04	19.04	01	04.76	04	19.04	21
		B	07	29.17	05	20.83	01	04.17	11	45.83	24
3	Daurbalya	A	19	63.33	10	33.33	00	00	01	03.33	30
		B	12	40.00	06	20.00	00	00	12	40.00	30
4	Arohen Shwas	A	14	46.67	10	33.33	02	06.67	04	13.33	30
		B	09	33.33	07	25.93	03	11.11	08	29.63	27
5	Pandutwa	A	11	36.67	07	23.33	04	13.33	08	26.67	30
		B	08	26.67	08	26.67	01	03.33	13	43.33	30
6	Hridspandan	A	06	25.00	09	37.50	00	00	09	37.50	24
		B	03	12.00	06	24.00	02	08.00	14	56.00	25
7	Akshikuta Shotha	A	10	76.92	01	07.69	01	07.69	01	07.69	13
		B	05	35.75	02	14.29	00	00	07	50.00	14
8	Angamarda	A	10	38.46	10	38.46	00	00	06	23.08	26
		B	10	38.46	10	38.46	00	00	06	23.08	26
9	Mala Samata	A	25	92.59	02	07.40	00	00	00	00	27
		B	13	50.00	09	34.62	01	03.85	03	11.54	26
10	Mutra Samata	A	13	59.09	08	36.36	00	00	01	04.54	22
		B	09	39.13	08	34.78	02	08.69	04	17.39	23
11	Jivha Samata	A	20	74.08	04	14.81	01	03.70	02	07.40	27
		B	1	40.74	06	22.22	02	07.40	08	29.63	27



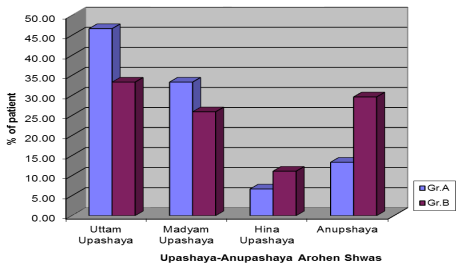
Graph- 1- showing incidence of upashaya/anupashaya after results in both groups for Mandagni



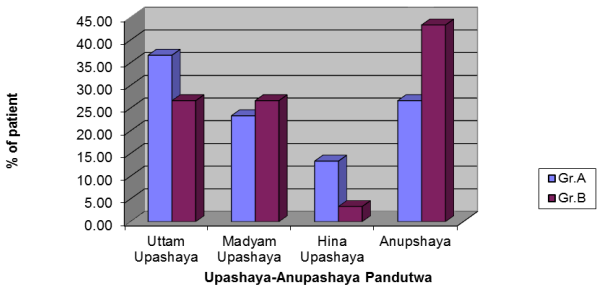
Graph- 2- Graph showing incidence of upashaya/anupashaya after results in both groups for Sthivan



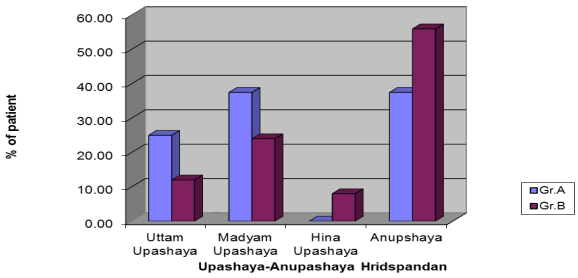
Graph- 3- showing incidence of upashaya/anupashaya after results in both groups for Daurbalya



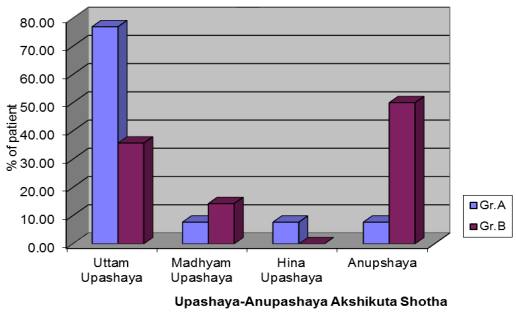
Graph- 4- showing incidence of upashaya/anupashaya after results in both groups for Arohen Shwas



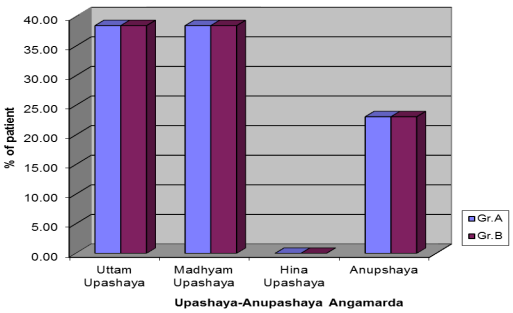
Graph- 5- Graph showing incidence of upashaya/anupashaya after results in both groups for Pandutwa



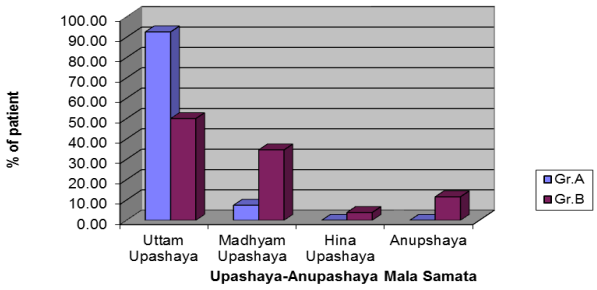
Graph- 6- showing incidence of upashaya/anupashaya after results in both groups for Hrid spandan



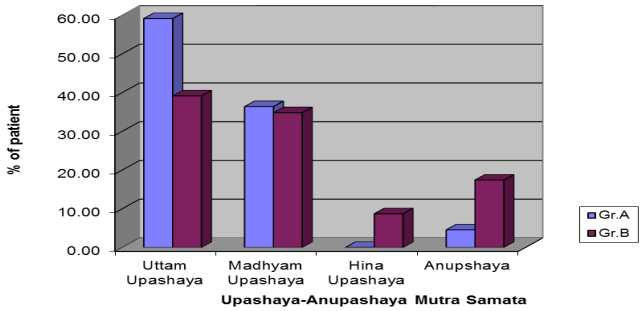
Graph- 7- showing incidence of upashaya/anupashaya after results in both groups for Akshikuta Shotha



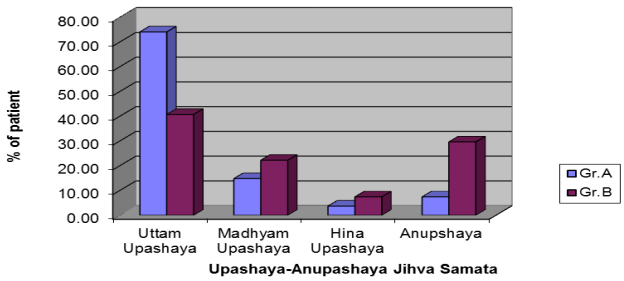
Graph- 8- showing incidence of upashaya/anupashaya after results in both groups for Angamarda



Graph- 9- showing incidence of upashaya/anupashaya after results in both groups for Mala Samata



Graph- 10- showing incidence of upashaya/anupashaya after results in both groups for Mutra Samata



Graph- 11- showing incidence of upashaya/anupashaya after results in both groups for Jihva Samata

Calculation of significance of difference in mean of Group A (Before and After Treatment): Paired 't' test

Table-11- Significance of difference between means of two groups

Sr. No	Lakshana	Gp	n	X	ΣX^2	$(\Sigma X)^2/n$	Individual variance	Comm. Varian.	S.D.	S.E.	't'	p	Significance
1	Mandagni	A	27	1.667	91	75	16	0.574	0.757	0.206	3.597	<0.001	Highly significant
		B	27	0.926	37	23.148	13.852						
2	Shthivan	A	21	1	29	21	8	0.394	0.627	0.187	2.45	<0.02	Significant
		B	24	0.542	16	7.042	8.958						
3	Daurbalya	A	30	1.333	62	53.333	8.667	0.463	0.68	0.175	2.857	<0.01	Highly significant
		B	30	0.833	39	20.833	18.167						
4	Arohen Shwas	A	30	1.467	86	64.533	21.46	0.678	0.823	0.217	2.498	<0.02	Significant
		B	27	0.925	39	23.148	18.85						
5	Pandutwa	A	30	0.7	21	14.7	6.3	0.267	0.517	0.133	0.752	>0.05	Insignificant
		B	30	0.6	20	10.8	9.2						
6	Hridspandan	A	24	0.958	39	22.042	16.958	0.534	0.731	0.209	2.478	<0.02	Significant
		B	25	0.44	13	4.84	8.16						
7	Akshikutshotha	A	13	1.077	18	15.077	2.923	0.334	0.578	0.223	2.269	<0.05	Significant
		B	14	0.571	10	4.571	5.429						
8	Angamarda	A	26	1.385	58	49.846	8.154	0.36	0.6	0.166	2.783	<0.01	Highly significant
		B	26	0.923	32	22.154	9.846						
9	Mala Samata	A	27	1.704	92	71.704	20.296	0.606	0.778	0.213	2.225	<0.05	Significant
		B	26	1.23	50	39.385	10.615						
10	Mootra Samata	A	22	1.818	82	72.72	9.28	0.525	0.724	0.215	3.00	<0.01	Highly significant
		B	23	1.173	45	31.69	13.31						
11	Jivha Samata	A	27	1.667	91	75	16	0.574	0.757	0.206	3.597	<0.001	Highly significant
		B	27	0.926	37	23.148	13.852						

DISCUSSION

Mandagni, Malasamata, Mutra Samata and Jihva Samata

Observerd 't' values are -

Mandagni - 3.597 ($p<0.001$)

Malasamata - 2.225 ($p<0.05$)

Mutra Samata - 3.00 ($P<0.01$)

Jivha Samata - 3.597 ($P<0.001$)

That means Patoladi Kashaya is statistically significant in curing the above Lakshana. In Pandu due to Hetusevan Koshthashrit Agni gets vitiated causing improper digestion of food leading to formation of Ama. Being Bahupichchhil in nature, this Ama increases the Dravaguna of Pitta and vitiates it. This increased Dravaguna of Pitta again causes Mandagni which leads to Ama formation and the vicious cycle continues.

Patoladi Kashaya contains Dravya having Tikta, Katu, Rasa and Sheet Veerya. Tikta Rasa being Vayu + Akash Mahabhoot Pradhan, absorbs the excess Dravata of Pitta and Sheet Veerya decreases the Pitta Prakopa. Katu Rasa have Agni+Vayu Mahabhoot Pradhanya, which causes Agnideepan and thus breaks down the Samprapti of Mandagni. Mala, Mutra and Jivha Samata are caused due to Amotpatti. These are the important objective parameters to study the prognosis of Ama. As the drug causes Amapachan, consequently the above mentioned Lakshana cures.

Shthivan

Observed 't' value for Shthivan is 2.45 ($P<0.02$) therefore the drug Patoladi Kashaya is statistically significant in curing Shthivan.

Shthivan Lakshana occurs due to Agnimandyajanit Ama. Since Patoladi Kashaya is Tikta Katu Rasa Pradhan (Tikta Rasa causes Amapachan and helps in curing Shthivan) Tikta Rasa by its Amapachan and Mukhvaishadyakar property and Katu Rasa by its Kledashoshan property helps in curing Shthivan.

Daurbalya, Arohen Shwas

Observed 't' values for Daurbalya and Arohen Shwas are 2.857 ($P<0.01$) and 2.498 ($P<0.02$) respectively. It proves that the study drug is significant in curing Daurbalya and Arohen Shwas.

In Pandu due to Amotpatti there is formation of Sama-Rasadhatu. This Sama Rasadhatu proves unable to perform its Tarpan and Preenan Karm properly causing Daurbalya and Arohen Shwas. Due to Amapachan through Tikta, Katu Rasa and Laghu Guna of Patoladi Kashaya, proper Rasadhatu Nirman starts. This reduces Daurbalya and Arohen Shwas.

Hridspadan

Observed 't' value for Hridspandan is 2.478 ($P<0.02$) i.e. drug is significant in curing Hridspandan.

In Pandu due to Rasadushti, Rasanug Prakupit Dosh enters its Moola Sthana i.e. Hridaya, which affect the Karya of Hridaya. It causes Lakshana like Hridspandan. Also due to Poshak Rasadhatualpata Preenan of body gets hampered and body demands for more Rasadhatu. Circulation of Rasa is Karya of Hridaya and Vyan Vayu. Due to increased demand of body Hridaya starts to work fast causing Hridspandan. As the drug causes Rasanug Doshapachan, there is consequent decrease in Hridspandan.

Pandutwa

Observed 't' value is 0.752 ($P> 0.05$) i.e. Patoladi Kashaya is insignificant in curing Pandutwa.

In Pandu there is Uttarottar Dhatu Kshaya. Due to Raktalpata and Pitta Dushti, especially Bhrajak Pitta, Pandutwa arises. As drug is Tikta, Katu Rasatmak it causes Dhatugat Amapachan and Dhatwagni Deepan but it proves unable to do Dhatuvriddhi. Therefore Pandutwa is not cured by Patoladi Kashaya.

Akshikuta Shotha -

Observed 't' value is 2.269 ($P<0.05$) i.e. Patoladi Kashaya is significant in curing Akshikuta Shotha.

In Pandu Sama Rasadhatu causes Kledotapatti all over the body and Strotorodha, leading to Vataprakopa. This Prakupit Vata causes extravasation of Apa Dhatu from Strotasa causing Shotha. This Shotha occurs first in Periorbital area i.e. Akshikuta Shotha. As Pathogenesis continues the Shotha becomes Sarvadehik. Tikta and Katu Rasa of Patoladi Kashaya cause Rasadhatugat Doshapachan as well as 'Kledopashoshan' by Laghu, Ruksha Guna. This decreases the Strtorodha leading to Prakrit gati of Vata. In this way Patoladi Kashaya breaks the samprapti of Akshikuta Shotha.

Angamarda -

Observed 't' value is 2.783 ($P<0.01$) i.e. Patoladi Kashaya is significant in curing Angamarda.

In Pandu Rasadhatugat Ama causes Strotorodha. Due to which there is obstruction to proper Vatagati leading to its Vimargagaman causing Angamarda. Since the study drug causes Rasadhatugat Doshapachan Strotorodha reveals and Vata gets its proper Gati and Angamarda decreases.

Regarding above discussion and keeping in view the table no. **. Study drug ' Patoladi Kashaya' proves significant in curing all Lakshana of Amavastha in Pandu, cause Dhatwagni Deepan done by ' Patoladi Kashaya' ceases the further process of Dhatukshaya but not increases the Dhatu.

Whereas drug of group B 'Panchakola Kashaya' proves comparatively less efficient in curing Lakshana of Amavastha.

From above discussion, this inference can be drawn that without doing Dhatugat Amadoshapachan and Dhatwagni Deepan, directly given Dhatuvardhak chikitsa can cause prolongation of the pathogenesis of disease. Hence it is of prime importance to give Amapachan chikitsa first.

CONCLUSION

The clinical study was done under 2 groups of patients as -

Group A - 30 patients were treated with Patoladi Kashaya

Group B - 30 patients were treated with Panchakola Kashaya.

Considering the data, observations, statistical analysis the following conclusions can be drawn -

1. The drug ' Patoladi Kashaya' is efficient in treating Amavastha of Pandu.
2. There is no use of direct Dhatuvardhak Chikitsa without doing Dhatugat Amadoshapachan and Dhatwagni Deepan. Hence it is necessary to treat Amavastha first by Rasapachak Kashaya and then to think about Dhatuvardhak Chikitsa.

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