International Journal of Ayurveda Orientation

Volume 9, Issue 4, April 2024

A comparative study of Rasayans w.s.r. to Amalakam Vayasthapananama

Richa Singh, Mahendra Singh, Pradeep Jain

Received: April 12, 2024 | **Published:** April 28, 2024

Article ID: 133 | DOI: https://doi.org/10.67949/ijao.2024.133
www.ijao.in

A comparative study of Rasayans w.s.r. to Amalakam Vayasthapananama

Richa Singh, Mahendra Singh, Pradeep Jain

Richa Singh (Government Ayurvedic Chikitsalaya, Pancampur, Banda, U.P., India); Mahendra Singh (Government Ayurvedic College & Hospital, Atarra, Banda, U.P., India.); Pradeep Jain (Bundelkhand Government Ayurvedic College & Hospital, Jhansi, U.P., India)

Received: Apr 12, 2024 **Published:** April 28, 2024

ABSTRACT: The ageing is a deleterious, progressive, universal and thus far irreversible. Constant efforts have been made to understand the process of ageing and try to slow the process. Premature ageing has been one of the most burning problems. The main etiological factor behind it is stress. Right from the time of birth till the last breath drawn, an individual is invariably exposed to various stressful situations. This stressful lifestyle leads more and more people to age early before time i.e., Premature ageing. Ayurveda has separate branch for Jara - geriatrics among all eight branches, it indicates the importance of Jara and its management.Ayurveda scholars described ageing with two types: Kalaja Jara and Akalaja Jara. The Kalaja Jara or timely ageing is Yapya, which may be delayed by using the appropriate measures, whereas the Akalaja Jara is somewhat reversible by Rasayana therapy. This present work illustrates the comparative study of Rasayans (Haritaki and Amalaki) and its effect on different parameters.

INTRODUCTION

Ageing is essentially a physiological phenomenon which results because of the overwhelming inherent evolutionary processes by the involuntary changes occurring in the mind-body system. Man, the most developed living being on earth, desires

not only to live but to live a long, happy and disease-free life as far as possible. But the continuous improvement in life expectancy with technological advancement, urbanization, economic growth, increasing competition in every field of life etc., has led

© 2024 IJAO

to a stressful society. Thus, it is not surprising that interest in the issue has been rising in the present century which can be appropriately called the “Era of Anxiety & Stress”. This stressful lifestyle leads more and more people to age early before time i.e., premature ageing. The urge to live, the fear of death, the desire of youth, the distaste for old age and the quest for rejuvenation have always interested mankind from antiquity to modern times.

In Ayurveda, decade-wise ageing process is described. One particular thing is being lost by the decay of life span. Ageing is described of two types- Kalaja & Akalaja. The Kalaja Jara (Timely Ageing) is Yapya, which may be delayed using the appropriate measures, whereas the Akalaja Jara (premature ageing) is somewhat reversible by Rasayana therapy.

Rasayana is a unique and most important branch of Ayurveda, is the solution of undesired health problems resulting in a short life span due to various physical & mental stresses. Rasayana drugs are a group of medicinal preparations having *Balya*, *Medhya*, *Agnivardhaka*, *Ojovardhaka*, and *Vayasthapana* etc. and have been also proven pharmacological properties like immuno-modulator, adaptogenic, Anti-stress, Antianxiety, Antidepressant, and hepato-protective etc. *Rasayana* includes a multi-angled approach by taking care of not only the body but also the mind and spirit by drug as well as non-drug measures including *Achara Rasayana*.

Srotas are channels transporting food. The strength and lustre of one who knows the suitable diet and regimen for every season and practices accordingly are enhanced. Enhancement of strength and lustre includes happiness etc. caused by the maintenance of the equilibrium of tissue element.

AIM AND OBJECTIVES

1. To evaluate the role of disturbed *Manasika Bhava* & Stress the etio-pathogenesis of premature ageing.

2. To evaluate the effect of specific symptoms of *Jara* viz. *Medha Hani*, *Twak Hani, Dristi Hani.*

3. To evaluate the mental state of the patient by determination of *Manasika Bhava*, Hamilton Anxiety Rating Scale, Hamilton Depression Rating Scale and Brief Psychiatric Rating Scale.

© 2024 IJAO

4. To assess and compare the efficacy of *Amalaki Churna*, *Haritaki Churna* & Placebo *Rasayana* on *Akalaja Jara* as well as on *Manasika Bhava*.

MATERIALS AND METHODS

Present study has been done in 2 steps -

Step 1: Preparation of *Amalaki Churna, Haritaki Churna* and *Godhum*

All drugs were crushed in a disintegrator separately into fine powder. The powder was prepared and supplied from R.D. M.A.P.G. College, pharmacy, Bhopal.

Step 2: Comparative clinical study of *Jara*

Individuals are attending the O.P.D. of Dept. of *Swasthavritta* & *Kayachikitsa*, *Rani Dullaiya Smriti* Ayurved P.G. College & Hospital, Bhopal, (M.P.) having signs and symptoms of Premature Ageing. 90 patients (divided in three groups and 30 patients in each group)

INCLUSION CRITERIA

1. Individuals between the ages 30 to 70 years with clinical features of *Jara*.

2. Individuals are selected without any major pathological condition

3. Individuals are selected having age-related complaints according to selection criteria.

EXCLUSION CRITERIA

1. Individuals excluded having any diseases.

2. Individuals excluded below 30 and above 70 years of age.

3. Contraindicated persons of *Churna* were not taken for the study.

CRITERIA FOR DIAGNOSIS

© 2024 IJAO | Volume 9, Issue 4, April 2024

Two criteria used for this study -

(A) Subjective Criteria

Jara Lakshanas like *Chavi Hani*, *Medha Hani, Twak Hani* and *Drishti Hani* will be assessed. Mental health of the patient has been evaluated based on the Brief Psychiatric Rating Scale along with the Hamilton Anxiety Rating Scale and the Hamilton Depression Rating Scale before and after the treatment.

(B) Objective Criteria: (investigations)

1. Routine haematological: Routine haematological test was performed by Hb%, TLC, DLC

2. Lipid profile

3. BMI

Gradation of Complaints

The following scores were assigned to each complaint/parameter based on which the effect of therapy was assessed.

		Score 0	Score 1	Score 2	Score 3
1	*Twak Parushya* (Dryness of skin)	No dryness	Scratches can be made on the skin	Skin looks dry but not cracked	Skin looks dry with cracks

© 2024 IJAO | Volume 9, Issue 4, April 2024

2	*Medha Hani* (Decreased functions of Intellect)				
	a) Grahana (Grasping Power)	No deterioration in grasping power	Occasionally fails to grasp the subject	Often fails to grasp the subject	Always fails to grasp the subject
	b) Dharana (Retention Power)	No deterioration in retention power	Occasionally fails to retain/hold up the subject	Often fails to retain/hold up the subject	Always fails to retain/hold up the subject
	c) *Smarana* (Memory Power)	No deterioration in memory	Occasionally fails to remember the things	Often fails to remember the things	Always fails to remember the things
	d) *Dristi Hani* (Diminished Vision)	No diminished vision	Mild loss of range of visual accommodation	Moderate loss of range of visual accommodation	Severe loss of range of visual accommodation
3	*Prabha hani /Chhavi Hras* (Changes in Complexio)	No changes in complexion	Mild changes in complexion	Moderate changes in complexion	Severe changes in complexion
4	*Vali* (Wrinkling)	No wrinkling	After skin raising, wrinkle subsides early	After skin raising, wrinkle persist for longer duration	Wrinkle visible even without raising the skin
5	Palitya (Graying of hairs)	No graying of hairs	Very few gray hairs	Partial graying of hairs	Sufficient graying of hairs
6	*Vachana* (Speech)	No deterioration in speech	Occasionally feels problem in speaking	Often feels problem in speaking	Always feels problem in speaking
7	*Utsaha Hani* (Decreased Enthusias)	No decrease in enthusiasm	Occasionally feels decrease in enthusiasm	Often feels decrease in enthusiasm	Always feels decrease in enthusiasm

© 2024 IJAO | Volume 9, Issue 4, April 2024

8	*Dhatu Kshaya* (Loss of tissues)	Absence (0 – 25%) of Dhatu kshaya symptoms	Mild (25 – 50%) of Dhatu Kshaya symptoms	Moderate (50 – 75%) of Dhatu Kshaya symptoms	Severe (76 – 100%) of Dhatu Kshaya symptoms

OBSERVATION BASED RESAUT

A. Result of Chief Complaints in Group-A the data shows that a highly significant results (P<0.001) were found in *Chhavi Hani*, *Smarana Hani* & *Twak Hani* . Whereas, Significant improvements were found in other chief complaints i.e. in Grahlana *Hani* (0.01), *Dharana Hani* (0.007) & *Dristi Hani* (0.03). In Group B the above data shows that highly significant results (P <0.001) were found in Chhavi hani & Grahana shakti hani. Whereas, Significant improvements were found in other chief complaints i.e. in Dharana shakti hani (0.02), Smarana shakti hani (0.03), Twak hani (0.04)& Dristi hani (0.02). In Group C the above data shows that, No significant change was found in any type of chief complaint.

B. Results of objective parameters In group-A : The data shows highly significant results (<0.001) in HARS, HDRS & BPRS. While BMI shows an insignificant result (0.12). In group-B data shows highly significant result (<0.001) in BMI. Whereas significant results in HARS (0.01), HDRS (0.004) & BPRS (0.005). In group-C data shows that, no significant change was found in any parameter.

C. Result of haematological & biochemical parameters in group-A : The data shows that Highly significant increase was found in Hb% (<0.001). Significant increase was found in TLC (0.01) & HDL (0.004). Whereas significant decrease was found in LDL (0.003), VLDL (0.03), S. Tg. (0.03) & S. Cho.(0.02), while DLC shows insignificant increase or decrease statistically. In Group B data shows that Highly significant decrease (<0.001) was found in LDL & S.Cho. Whereas, significant decrease was found in VLDL (0.01) & S.Tg. (0.01), Significant increase was found in Hb% (0.02) & TLC (0.02). While, HDL & DLC shows insignificant increase or decrease statistically. In Group C data shows that none of the parameters were having significant increase or decrease.

© 2024 IJAO | Volume 9, Issue 4, April 2024

D. Overall results of therapy on chief complaints through 'Anova' test, data shows P <0.001 i.e. there is highly significant difference between the treatment of chief complaints of three groups treated by different drugs. So, we have to accept the research / alternate hypothesis which states that there is a significant difference in the treatment of chief complaints of the three groups who were treated by 3 different drugs.

E. Overall the results of therapy, the data shows complete remission was found in 6.7 % of patients in group-A. Marked improvements was observed in 16.7 % of patients in group-A and 13.4 % of patients in group-B. Moderate improvements was found in 46.6 % of patients in group-A & 43.3% of patients in group-B. Mild Improvement was found in 20 % of patients in group-A and 23.3% in group-B. Whereas 10% & 20% of patients were found unchanged in group-A and group-B respectively. While no improvement was observed in all (100%) the patients of group-C.

F. Total results of therapy on presenting features in all the groups.

The data shows the overall effect of therapy on presenting symptoms in all the groups. The symptoms were decreased moderately (60.4%) in Group A, whereas symptoms were decreased mildly (40.1%) in Group B, while symptoms were increased slightly (7%) in Group C. So the data shows that Moderate improvement was observed in group 'A' followed by Mild improvement in group 'B' and No improvement in group 'C' respectively.

CONCLUSION

Amalaki & Haritaki both show the good results against the jara, but the present study indicates that Amalaki shows better result in comparison to Haritaki. Amalaki has - Antiulcer, Antioxidant, Immunomodulatory, Anti-Inflammatory, Spasmolytic, Hypolipidaemic, Antiatherosclerotic, Antimutagenic, Antimicrobial, Antifungal, Antitumor, Hypoglycaemic, Antibacterial, Andrenergic Potentiating, HIV-1 Reverse Transcriptase inhibitory action. Amalaki is the richest natural source of Vitamin C, alkaloids, Enzymes, Tannin. Amla is known for its adaptogenic properties immune support herbal supplement of the body. Amlaki also has natural bioflavonoids. Amala contains high concentration of

© 2024 IJAO | Volume 9, Issue 4, April 2024

many minerals (also zinc, copper, chromium) & amino acids, more then found in Apple. Amalaki also improves the health of the blood, bones, digestive system, liver, skin, and enhance intellect (Medhya). Haritaki showed significant reduction in total cholesterol, triglycerides & low density lipoprotein cholesterol. Haritaki was found to possess significant hypolipidemic activity. Haritaki has laxative, rejuvenative, purgative, astringent, nervine tonic properties. Haritaki improves digestion, promotes the absorption of nutrients, and regulates colon function. Haritaki if taken with meals helps in the intellect, the strength of the body, stimulates the senses and aids to expel the urine, stool and other waste material from the body easily. Haritaki is reputed for its alternative adaptogenic and tonic effects. On long term use it is helpful in losing weight in obese persons. *Rasayana Dravyas* act at the *Dhatvagni* level thereby giving good effects. Clinical evaluation is not possible on all the symptoms of Jara, so one or two or three or four symptoms should take for evaluation. Keeping this thing in mind *Chhavi Hani*, *Medha Hani*, *Twak Hani* and Dristi Hani were taken and evaluated conceptually as well as clinically. Standard method was used for evaluation subjectively and objectively. Statistical analysis like Paired 't' test was used to evaluate the efficacy of drug on signs and symptoms of *Jara*. Anova table shows P <0.001, i.e. there is highly significant difference between the treatment of chief complaints of three groups treated by 3 different drugs. The overall effect of the therapy indicates that the symptoms were decreased moderately (60.4%) in Group A, whereas symptoms were decreased mildly (40.1%) in Group B, while symptoms were increased slightly (7%) in Group C. So, *Amalaki* shows better results in comparison to Haritaki & Placebo. Hence it indicates that "*Amalakam Vayasthapananama*" also narrated by Acharya '*Charaka'*.

REFERENCES

1. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Vol. II, Re edition, Chp. 16/4, Varanasi; Chaukhambha Bharati Academy; 2004. p. 487.

2. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Vol. II, Re edition, Chp. 16/5-6, Varanasi; Chaukhambha Bharati Academy; 2004. p. 487.

3. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Vol. II, Re edition, Chp. 16/3, Varanasi; Chaukhambha Bharati Academy; 2004. p. 486.

4. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Vol. II, Re edition, Chp.

© 2024 IJAO

16/14-16, Varanasi; Chaukhambha Bharati Academy; 2004. p. 488.

5. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Re ed., Vol. I, Chp. 1/57, Varanasi; Chaukhambha Bharati Academy; 2003. p. 32.

6. Susruta Samhita edited with Ayurveda - Tatatva - Sandipika by Kaviraj Ambika Dutta Shastri, Vol. I, Reprint edition, Chp. 21/10, Varanasi; Chaukhambha Sanskrit Sansthan; 2005. p. 89.

7. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Vol. II, Re edition, Chp. 16/70-71, Varanasi; Chaukhambha Bharati Academy; 2004. p. 498.

8. Acharya Vagbhata, Editor Atrideva Gupta, Astangahridaya Chikitshasthan. Re ed., Chp.16/14, Varanasi; Chaukhambha Sanskrit Sansthan: 2005, pp. 396.

9. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Re ed., Vol. I, Chp. 9/7, Varanasi; Chaukhambha Bharati Academy; 2003. p. 193.

10. Susruta Samhita edited with Ayurveda - Tatatva - Sandipika by Kaviraj Ambika Dutta Shastri, Vol. I, Reprint edition, Chp. 34/22-23, Varanasi; Chaukhambha Sanskrit Sansthan; 2005. p. 129.

11. Visweshwar Siddhanta Siromani, Tarkabhasha. 10th ed., Varanasi; Chaukhambha Sanskrit Sansthan: 2000, pp. 192.

12. Agnivesh, Kashinath Shastri, Gorakhnath Chaturvedi, Re ed., Vol. I, Chp. 1/44, Varanasi; Chaukhambha Bharati Academy; 2003. p. 15.

13. Susruta Samhita edited with Ayurveda - Tatatva - Sandipika by Kaviraj Ambika Dutta Shastri, Vol. I, Reprint edition, Chp. 14/9, Varanasi; Chaukhambha Sanskrit Sansthan; 2005. p. 49.

Tables & Figures

Table No. 1: Grouping

	GROUP A (Amalaki Churna)	**GROUP B (Haritiki Churna)**	**GROUP C (Godhum Churna)**
Patients	30	30	30
Dose	5 gms BD	5 gms BD	5 gms BD
Duration	90 Days	90 Days	90 Days
Anupana	Madhu	Madhu	Madhu

© 2024 IJAO | Volume 9, Issue 4, April 2024

Table No. 2: Effect on Chief Complaints in Group A

Chief Complaints	Mean Score			n	% Relief	S.D.	S.E.	T	P
	B.T.	A.T.	Diff.						
1.Chhavi hani	1.92	0.4	1.52	25	79.2	0.82	0.16	9.24	< 0.001
2.Medha hani									
Grahana hani	1.8	1	0.8	15	44.4	1.08	0.28	2.86	0.01
Dharana hani	2.2	1.1	1.1	20	50	1.62	0.36	3.04	0.007
Smarana hani	2.22	0.54	1.68	22	75.5	0.94	0.2	8.34	< 0.001
3. Twak hani	2	0.42	1.58	26	78.8	0.85	0.17	9.38	< 0.001
4. Dristi hani	1.66	1.19	0.47	21	28.5	0.93	0.20	2.35	0.03

Table No. 3: Effect on Chief Complaints in Group B

Chief Complaints	Mean Score			n	% Relief	S.D.	S.E.	T	P
	B.T.	A.T.	Diff.						
1. Chhavihani	1.78	0.74	1.04	23	58.5	0.56	0.12	8.89	<0.001
2. Medhahani									

© 2024 IJAO | Volume 9, Issue 4, April 2024

Grahanahani	2.06	0.29	1.77	17	85.7	0.66	0.16	10.9	< 0.001
Dharanahani	2.06	1.25	0.81	16	39.4	1.27	0.32	2.54	0.02
Smaranahani	1.7	1.25	0.45	20	26.5	0.89	0.19	2.26	0.03
3. Twak hani	1.83	1.37	0.46	24	25	1.06	0.22	2.11	0.04
4. Dristi hani	1.84	1.26	0.58	19	31.4	1.02	0.23	2.48	0.02

Table No. 4: Effect on Chief Complaints in Group C

Chief Complaints	**Mean Score**			**n**	**% Relief**	**S.D.**	**S.E.**	**T**	**P**
	B.T.	**A.T.**	**Diff.**						
1.Chhavihani	1.86	2.05	- 0.19	21	10.3	0.68	0.15	1.28	0.215
2.Medhahani									
Grahanahani	2	2.13	- 0.13	15	6.7	0.64	0.16	0.81	0.437
Dharanahani	1.71	1.76	- 0.05	21	2.8	0.67	0.14	0.32	0.75
Smaranahani	1.63	1.74	- 0.11	19	6.4	0.74	0.17	0.62	0.543
3. Twak hani	1.69	1.78	-0.09	23	5.1	0.73	0.15	0.57	0.574
4. Dristi hani	1.86	2	- 0.14	21	7.7	0.65	0.14	1	0.329

Table No. 5: Effect on Objective Parameters in Group A

© 2024 IJAO | Volume 9, Issue 4, April 2024

	Mean Score			n	% Relief	S.D.	S.E.	T	P
	B.T.	A.T.	Diff.						
Anxiety Rating Scale	15.27	7.83	7.44	30	48.7	4.76	0.87	8.55	<0.001
Depression Rating Scale	12.93	6.37	6.56	30	50.8	4.15	0.76	8.67	<0.001
B.P.R.S.	13.47	7.07	6.4	30	47.5	4.2	0.76	8.4	<0.001
BMI	22.64	22.36	0.28	30	1.2	0.96	0.17	1.61	0.12

Table No. 6: Effect on Objective Parameters in Group B

	Mean Score			n	% Relief	S.D.	S.E.	T	P
	B.T.	A.T.	Diff.						
Anxiety Rating Scale	13.17	11.63	1.53	30	11.6	3.37	0.61	2.49	0.02
Depression Rating Scale	10.8	9	1.8	30	16.7	3.3	0.61	2.95	0.006
B.P.R.S.	13.27	11.5	1.77	30	13.3	3.24	0.59	2.98	0.005
BMI	24.47	23.36	1.11	30	4.5	0.69	0.13	8.79	<0.001

Table No. 7: Effect on Objective Parameters in Group C

	Mean Score			n	% Relief	S.D.	S.E.	T	P
	B.T.	A.T.	Diff.						

© 2024 IJAO | Volume 9, Issue 4, April 2024

Anxiety Rating Scale	12.63	12.8	-0.17	30	1.3	1.08	0.19	0.841	0.407
Depression Rating Scale	10.2	10.4	-0.2	30	2.3	0.93	0.17	1.366	0.182
B.P.R.S.	11.4	11.6	-0.2	30	2.1	0.82	0.15	1.564	0.129
BMI	22.21	22.28	0.07	30	0.3	0.45	0.08	0.839	0.408

Table No. 8: Effect on Haematological & Biochemical Parameters in Group A

Parameters	**Mean Score**			**n**	**% Relief**	**S.D.**	**S.E.**	**T**	**P**
	B.T.	**A.T.**	**Diff.**						
Hb%	10.75	12.03	-1.29	30	12	0.79	0.14	8.85	<0.001
TLC	8512	8729.2	-217.2	30	2.5	436.1	79.6	2.72	0.01
DLC N	62.1	61.4	0.7	30	1	2.26	0.41	1.53	0.137
L	32	31.6	0.4	30	1.14	2.07	0.38	0.97	0.34
E	3	3.5	-0.5	30	15.5	1.55	0.28	1.65	0.109
M	2.9	3.4	-0.5	30	18.2	1.83	0.33	1.59	0.122
HDL	52.3	58.1	-5.8	30	11	10.2	1.85	3.09	0.004
LDL	110	100.7	9.3	30	8.4	16.1	2.9	3.16	0.003
VLDL	25.9	25.1	0.8	30	3.3	2.08	0.38	2.28	0.03
S.Triglyceride	129.7	125.3	4.4	30	3.4	10.4	1.9	2.27	0.03

© 2024 IJAO | Volume 9, Issue 4, April 2024

S. Cholesterol	188.4	183.9	4.5	30	2.4	9.56	1.74	2.55	0.02

Table No. 9: Effect on Haematological & Biochemical Parameters in Group B

Parameters	**Mean Score**			**n**	**% Relief**	**S.D.**	**S.E.**	**T**	**P**
	B.T.	**A.T.**	**Diff.**						
Hb%	11.87	12.02	-0.15	30	1.2	0.32	0.06	2.46	0.02
TLC	7707	7838	-131	30	1.7	294	53.7	2.44	0.02
DLC N	61.13	61.36	0.23	30	0.38	2.4	0.44	0.523	0.605
L	32.6	31.9	0.7	30	2.1	2.29	0.42	1.59	0.122
E	2.9	3.2	-0.33	30	11.5	1.45	0.26	1.26	0.218
M	3.36	3.46	-0.1	30	2.97	1.86	0.34	0.294	0.77
HDL	51.54	50.8	0.74	30	1.4	5.76	1.05	0.706	0.486
LDL	123.4	102.9	20.5	30	16.6	18.47	3.37	6.07	<0.001
VLDL	28.28	26.05	2.23	30	7.9	4.67	0.853	2.62	0.01
S.Triglyceride	141.4	130.2	11.2	30	7.9	23.37	4.26	2.62	0.01
S.Cholesterol	203.3	179.8	23.5	30	11.5	17.85	3.26	7.2	<0.001

Table No. 10: Effect on Haematological & Biochemical Parameters in Group C

© 2024 IJAO | Volume 9, Issue 4, April 2024

Parameters	Mean Score			n	% Relief	S.D.	S.E.	T	P
	B.T.	A.T.	Diff.						
Hb%	12.03	12.01	0.02	30	0.17	0.12	0.02	0.95	0.351
TLC	6123.8	6141.7	-17.9	30	0.29	123.4	22.5	0.79	0.432
DLC									
N	61.73	61.67	0.06	30	0.11	2.03	0.37	0.18	0.858
L	31.83	31.56	0.27	30	0.8	2.2	0.4	0.66	0.511
E	2.37	2.6	-0.23	30	9.8	1.61	0.29	0.793	0.434
M	4.06	4.16	-0.1	30	2.4	2.05	0.37	0.266	0.792
HDL	57.4	57.13	0.27	30	0.46	2.05	0.37	0.71	0.482
LDL	153.3	156.1	-2.8	30	1.8	9.03	1.65	1.66	0.120
VLDL	26.11	26.22	-0.11	30	0.46	1.1	0.20	0.593	0.559
S.Triglyceride	130.53	131.13	-0.6	30	0.46	5.53	1.01	0.59	0.558
S.Cholesterol	237	238.4	-1.4	30	0.6	8.25	1.5	0.95	0.349

Table No. 11: Overall Effect of Therapy

Total Effect	Group A		Group B		Group C	
	No. of Pts (30)	Percentage	No. of Pts (30)	Percentage	No. of Pts (30)	Percentage
Complete remission	2	6.7	0	0	0	0
Marked Improvement	5	16.7	4	13.4	0	0

© 2024 IJAO | Volume 9, Issue 4, April 2024

Moderate Improvement	14	46.6	13	43.3	0	0
Mild Improvement	6	20	7	23.3	0	0
No Improvement	3	10	6	20	30	100

Table No. 12: Total Effect of Therapy on Presenting Features in All The Groups

GROUPS	% RELIEF	TOTAL EFFECT
Group A	60.4 %	Moderate improvement
Group B	40.1 %	Mild improvement
Group C	7 %	No improvement



Figure 1:



Figure 2:

© 2024 IJAO | Volume 9, Issue 4, April 2024



Figure 3:

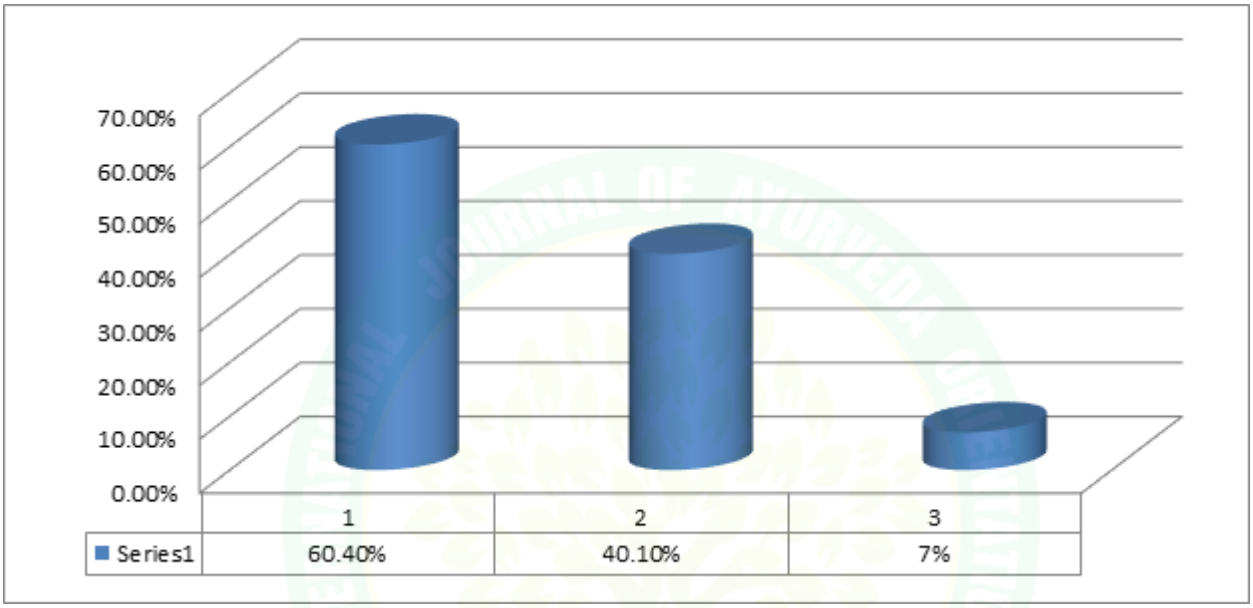


Figure 4:

HOW TO CITE THIS ARTICLE:

APA: Richa Singh, Mahendra Singh, Pradeep Jain (2024). A comparative study of Rasayans w.s.r. to Amalakam Vayasthapananama. *International Journal of Ayurveda Orientation*, 9(4), 1-17. DOI: https://doi.org/10.67949/ijao.2024.133

MLA: Richa Singh, et al. "A comparative study of Rasayans w.s.r. to Amalakam Vayasthapananama." *International Journal of Ayurveda Orientation* 9.4 (2024): 1-17.

Vancouver: Richa et al. A comparative study of Rasayans w.s.r. to Amalakam Vayasthapananama. International Journal of Ayurveda Orientation 2024;9(4):1-17.

© 2024 IJAO | Volume 9, Issue 4, April 2024