



Research Article

www.ijrap.net (ISSN:2229-3566)



A COMPARATIVE CLINICAL TRIAL OF KARSHYAHAR LOUHA CHURNA AND PLACEBO GODHUMA CHURNA IN THE MANAGEMENT OF ATIKRISHA PATIENT WITH SPECIAL REFERENCE KARSHYA

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Received on: 22/09/20 Accepted on: 18/11/20

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DOI: 10.7897/2277-4343.1106181

ABSTRACT

Karshya is the abstract noun which reflects the quality of Krishna person along with the word denotes to keep short, to become lean, to become emaciated, to lessen, diminish, alternate, weak, feeble, spare, small, little, minute, insignificant from the above description it is clear that Karshya can be taken as the nutritional deficiency disorder which may result due to under nutrition or malnutrition. An effort has been taken to find out the clinical efficacy of Karshyahar Louha Churna and Godhuma Churna in the management of Karshya roga. Sixty karshya patients of either sex were randomly selected from Swasthavritta O.P.D. and I.P.D. of Rani Dullaiya Smriti Ayurved Post Graduate College and Hospital, Bhopal, M.P., India. Overall, in this study Karshyahar Louha Churna is 64.05% and Godhuma Churna is 46.28% having clinical efficacy.

Keywords: Karshya roga, Godhuma Churna, Karshyahar Louha Churna

INTRODUCTION

Malnutrition generally refers both to under nutrition and over nutrition, but in this guide, we use the term to refer solely to a deficiency of nutrition. Many factors can cause malnutrition, most of which relate to poor diet or severe and repeated infections, particularly in under privileged populations¹. Inadequate diet and disease, in turn, are closely linked to the general standard of living, the environmental conditions and whether a population can meet its basic needs such as food, housing and health care². Malnutrition is thus a health outcome as well as a risk factor for disease and exacerbated malnutrition and it can increase the risk both of morbidity and mortality³. Although it is rarely the direct cause of death, child malnutrition was associated with 54% of child deaths (10.8 million children) in developing countries in 2001⁴. However, this malnutrition stage explained in Ayurvedic classics as Karshya and Ati Karshya⁵. Karshya is a disease condition in which the body of a person becomes emaciated, having less quantity of rasa dhatu⁶ causing further status of mansahinta or mansakshaya⁷. So, it's time to conduct a comparative clinical trial on Karshya roga.

MATERIAL AND METHODS

Sixty Karshya patients of either sex were randomly selected from Swasthavritta O.P.D. and I.P.D. of Rani Dullaiya Smriti Ayurved Post Graduate College and Hospital, Bhopal (M.P), India. Informed consent was taken from patients prior to participation in study. 60 anemic patients were randomly divided into two groups. 30 patients were in group A and rest 30 was in B group. Karshyahar Louha Churna 6 gm B.D with 10 ml Bhringraja Swarasa as Anupana was received by Group A orally and Group B received Placebo Godhuma Churna 6 gm B.D with 10 ml water

as Anupana orally for a period of 3 months. Both groups comparative before and after treatment statistical analysis (mean percentage, S.D., S.E. and paired t-value) were done in this study by using graph pad prism software version -8. Paired t test was used for intra group comparison.

Method of collection of data

Ayurveda criteria's like-Anidra, Yesha Shrama, Dhamanijala Darshana, Weight, BMI, Mid-Arm Circumference and Abdomen Circumference; the assessment was conducted every 30 days interval and improvement of both the groups was noted. The grading criteria were mentioned in Table 1.

The raw drugs were collected from local market and authenticated by Dravya guna department and both drugs were prepared under observation of Rasa Shastra department at the Rani Dullaiya Smriti Ayurved Post Graduate College and Hospital. The ingredients of Karshyahar Louha Churna were mentioned in Table 2.

Inclusion criteria

- Patients of Karshya had been selected irrespective of sex, caste and religion between the age groups of 16 years to 30 years.
- Bodyweight less than 20% to 30% of standard Bodyweight as per W.H.O criteria and the Patient who having symptoms of Karshya as per Ayurveda.

Exclusion criteria

- Diabetes Mellitus

- Cardiac diseases
- HIV infection
- Tuberculosis
- Addison's disease
- Hyperthyroidism

RESULT

Age and Sex-wise patient distribution

Out of 60 patients, the majorities were from age group 21- 25 years (45.00%) followed by age group 26-30 years (28.33%). In group A, there were 19 males (63.33%) and 11 patients were female (36.67%) while in group B, 20 patients were male (66.67%) and 10 patients (33.33%) were female (Table 3 and 4).

Religion wise patient distribution

In group A, 19 patients (63.33%) were Hindu, 7 patients (23.33%) were Muslim while 4 patients (13.33%) were of other religion. In group B, 24 patients (80%) were Hindu, 3 patients (10%) were Muslim while 3 patients (10%) were of other religions (Table 5).

Distribution of patients based on marital status

In Group A, there were 12 married (40.00%) and 18 patients were unmarried (60.00%) while in Group B 17 patients were married (56.67%) and 13 patients (43.33%) were unmarried (Table 6).

Distribution of patients based on appetite

In Group A, 15 patients (50.00%) were having a poor appetite, 9 patients (30.00%) were with moderate appetite while 6 patients (20.00%) were with good appetite. In Group B, 13 patients (43.33%) were having a poor appetite, 8 patients (26.67%) were with moderate appetite while 9 patients (30.00%) were with a good appetite (Table 7).

Distribution of patients based on diet

In Group A, 19 patients (63.33%) were vegetarian while 11 patients (36.67%) were taking a mixed diet. In Group B, 21 patients (70.00%) were vegetarian while 9 patients (30.00%) were taking a mixed diet (Table 8).

Distribution of patients based on bowel

In Group A, 18 patients (60.00%) were with regular bowel habits while 12 patients (40.00%) were with constipated bowel. In Group B, 17 patients (56.67%) were with regular bowel habits while 13 patients (43.33%) were with constipated bowel (Table 9).

Distribution of patients based on height

Mean height of Group A was 165.3 cm with S.D. of 9.84 cm while mean height for Group B was 157.8 cm with S.D. of 11.85 cm (Table 10).

Effect of drugs in Group A and B on Anidra

The data of Anidra showed statistically highly significant (HS) results in both groups (Table 11).

Effect of drugs in Group A and Group B on Yesha Shrama

The above data of Yesha Shrama showed statistically highly significant result in both groups (Table 12).

Effect of drugs in Group A and Group B on Dhamanijala Darshana

The above data of Dhamanijala Darshana showed statistically highly significant result in both groups (Table 13).

Effect of drugs in Group A and Group B on Weight and BMI

The above data of weight and BMI both showed statistically highly significant results in Group A and Group B (Table 14).

Effect of drugs in Group A and Group B on Mid Arm Circumference and Abdomen Circumference

The above data of Mid Arm Circumference and Abdomen Circumference was showed statistically highly significant results in Group A and Group B (Table 15).

Overall clinical assessment of therapy

For assessing the overall clinical effect, a weighted average of subjective and objective improvements is considered. Subjective improvement given 80% weight while objective improvement given 20% weightage (Table 16).

Table 1: Grading criteria of subjective parameter

S. No	Symptoms	Score	Grade
1.	Anidra	Normal Sleep 6-8 hour	0
		Sleep for 5-6 hour	1
		Sleep for 4-5 hour	2
		Sleep for 3-4 hour	3
2.	Yesha Shrama	Absent	0
		Exhaustion on mild work	1
		Exhaustion even with work routine work	2
		Exhaustion even at rest	3
3.	Dhamanijala Darshana ^s	Invisible	0
		Visible only on Extremities	1
		Extremities & Face & Trunk	2
		Whole body	3

Table 2: Karshyaha Louha Churna ingredients ⁹

S. No	Common Name	Latin Name	Parts Used	Ratio
1	<i>Punarnava</i>	<i>Boerhavia diffusa</i> L.	Root	1
2	<i>Danti</i>	<i>Baliospermum montanum</i> Muell. Arg.	Root	1
3	<i>Ashwagandha</i>	<i>Withania somnifera</i> (L.) Dunal	Root	1
4	<i>Pippali</i>	<i>Piper longum</i> L.	Fruit	1
5	<i>Maricha</i>	<i>Piper nigrum</i> L.	Fruit	1
6	<i>Shunthi</i>	<i>Zingiber officinale</i> Roscoe	Rhizome	1
7	<i>Haritaki</i>	<i>Terminalia chebula</i> Retz.	Fruit	1
8	<i>Vibhitaki</i>	<i>Terminalia bellirica</i> (Gaertn.) (Roxb.)	Fruit	1
9	<i>Amalaki</i>	<i>Emblica officinalis</i> Gaertn.	Fruit	1
10	<i>Musta</i>	<i>Cyperus rotundus</i> L.	Rhizome	1
11	<i>Vidanga</i>	<i>Embelia ribes</i> Burm.f.	Fruit	1
12	<i>Chitraka</i>	<i>Plumbago zeylanica</i> L.	Root Bark	1
13	<i>Shatavari</i>	<i>Asparagus racemosus</i> Willd.	Root	1
14	<i>Bala</i>	<i>Sida cordifolia</i> L.	Root	1
15	<i>Louha bhasma</i>	Calcined iron	-----	14

Table 3: Distribution of age of group A & B

S. No.	Age Group	Group A		Group B		Total	
		Count	%	Count	%	Count	%
1.	16 – 20	08	26.67%	08	26.67%	16	26.67%
2.	21 – 25	09	30.00%	18	60.00%	27	45.00%
3.	26 – 30	13	43.33%	04	13.33%	17	28.33%
Total		30	100%	30	100%	60	100%

Table 4: Distribution of sex of group A & B

S. No.	Sex	Group A		Group B		Total	
		Count	%	Count	%	Count	%
1.	Male	19	63.33%	20	66.67%	39	65.00%
2.	Female	11	36.67%	10	33.33%	21	35.00%

Table 5: Distribution of religion of group A & B

S. No.	Religion	Group A		Group B		Total	
		Count	%	Count	%	Count	%
1.	Hindu	19	63.33%	24	80.00%	43	71.67%
2.	Muslim	07	23.33%	03	10.00%	10	16.67%
3.	Other	04	13.33%	03	10.00%	07	11.67%

Table 6: Distribution of marital status of group A & B

S. No.	Marital status	Group A		Group B		Total	
		Count	%	Count	%	Count	%
1.	Married	12	40.00%	17	56.67%	29	48.33%
2.	Unmarried	18	60.00%	13	43.33%	31	51.67%

Table 7: Distribution of appetite of group A & B

S. No.	Appetite	Group A		Group B		Total	
		Count	%	Count	%	Count	%
1.	Poor	15	50.00%	13	43.33%	28	46.67%
2.	Moderate	09	30.00%	08	26.67%	17	28.33%
3.	Good	06	20.00%	09	30.00%	15	25.00%

Table 8: Distribution of diet of group A & B

S. No.	Diet	Group A		Group B		Total	
		Count	%	Count	%	Count	%
1.	Vegetarian	19	63.33%	21	70.00%	40	66.67%
2.	Mixed	11	36.67%	09	30.00%	20	33.33%

Table 9: Distribution of bowel of group A & B

S. No.	Bowel	Group A		Group B		Total	
		Count	%	Count	%	Count	%
1.	Regular	18	60.00%	17	56.67%	35	58.33%
2.	Constipated	12	40.00%	13	43.33%	25	41.67%

Table 10: Distribution of height of group A & B

S. No.	Group	N	Mean	S.D.	S.E.
1.	Group A	30	165.3	09.84	1.80
2.	Group B	30	157.8	11.85	2.16

Table 11: Effect of drugs in group A & B on Anidra

Anidra	Mean Score			N	SD	SE (±)	t value	P value	Remarks
	B.T.	A.T	Diff.						
Group A	2.53	0.60	1.93	30	0.254	0.046	41.738	0.001	HS
Group B	2.67	1.00	1.67	30	0.479	0.088	19.039	0.001	HS

Table 12: Effect of drugs in group A & B on Yesha Shrama

Yesha Shrama	Mean Score			N	SD	SE (±)	T value	P value	Remarks
	B.T.	A.T	Diff.						
Group A	2.57	0.57	2	30	0.263	0.048	41.713	0.001	HS
Group B	2.57	1	1.57	30	0.504	0.092	17.026	0.001	HS

Table 13: Effect of drugs in group A & B on Dhamanijala Darshana

Dhamanijala Darshana	Mean Score			N	SD	SE (±)	t value	P value	Remarks
	B.T.	A.T	Diff.						
Group A	2.33	0.50	1.83	30	0.379	0.069	26.492	0.001	HS
Group B	2.67	1.40	1.27	30	0.450	0.082	15.425	0.001	HS

Table 14: Effect of drugs in group A & B on Weight and BMI

Weight	Mean Score			N	SD	SE (±)	t value	P value	Remarks
	B.T.	A.T	Diff.						
Group A	47.13	53.17	6.03	30	1.217	0.222	27.149	0.001	HS
Group B	42.75	44.07	1.31	30	0.708	0.129	10.154	0.001	HS
BMI	Mean Score			N	SD	SE (±)	t value	P value	Remarks
	B.T.	A.T	Diff.						
Group A	17.17	19.40	2.23	30	0.499	0.091	24.445	0.001	HS
Group B	17.10	17.62	0.52	30	0.277	0.051	10.382	0.001	HS

Table 15: Effect of drugs in group A & B on Mid Arm Circumference & Abdomen Circumference

Mid Arm Circumference	Mean Score			N	SD	SE (±)	t value	P value	Remarks
	B.T.	A.T	Diff.						
Group A	21.47	23.53	2.07	30	0.365	0.067	31	0.001	HS
Group B	21.30	22.77	1.47	30	0.730	0.133	11	0.001	HS
Abdomen Circumference	Mean Score			N	SD	SE (±)	t value	P value	Remarks
	B.T.	A.T	Diff.						
Group A	80.50	83.63	3.13	30	0.681	0.124	25.185	0.001	HS
Group B	81.30	81.60	0.30	30	0.535	0.098	3.071	0.005	HS

Table 16: Overall Clinical assessment of therapy

Parameter	Mean % (Increase/Decrease)	
	Group A	Group B
Subjective parameters		
Anidra	76.32%	62.50%
Yesha Shrama	77.92%	61.03%
Dhamanijala Darshana	78.57%	47.50%
Average % improvement	77.60%	57.01%
Objective parameters		
Weight	12.80%	03.07%
Body Mass Index (BMI)	12.97%	03.08%
Mid Arm circumference	09.63%	06.89%
Abdomen circumference	03.89%	00.37%
Average % improvement	9.82%	3.51%

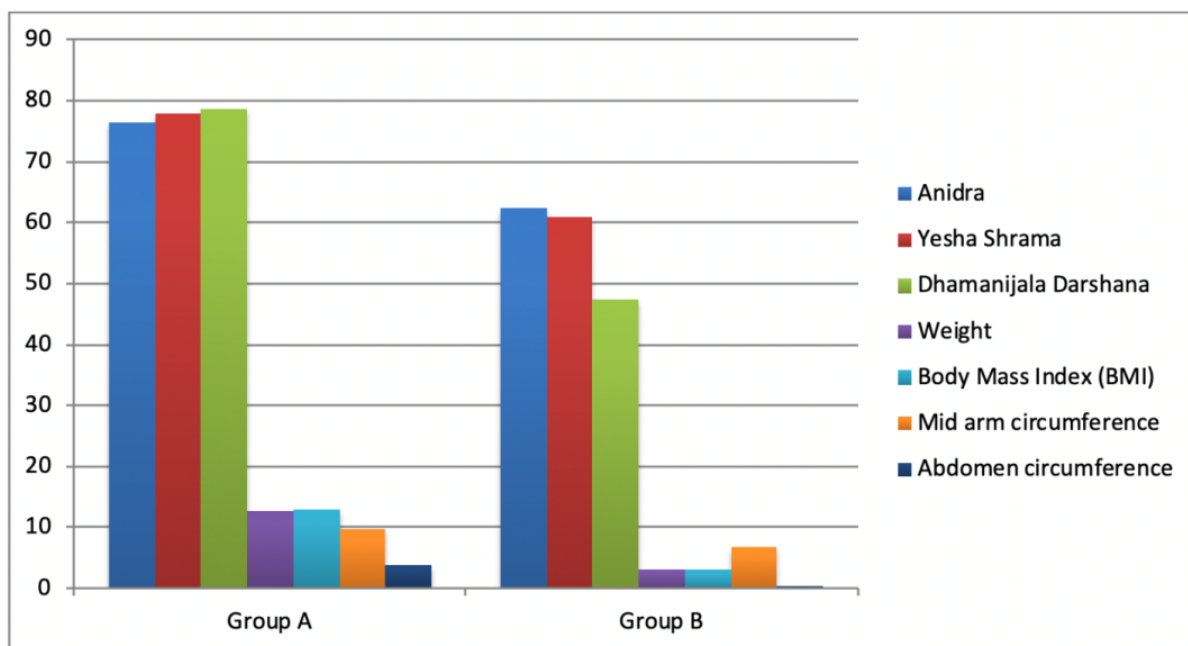


Figure 1: Comparative clinical improvements in both groups

DISCUSSION

In this clinical trial we found that out of 60 patients 71.67% from Hindu religion, Male patients 39 and female patient 21 in number, majority of the patient were unmarried with poor appetite (46.67%) and depended on vegetarian diet. The overall both subjective and objective parameter effect in the trial was showed in Figure 1. Both drugs were reached statistically significant result but the Karshyahar Louha Churna showed more clinical improvement compared to Godhuma Churna. A condition in which there is inadequate consumption, poor absorption or excessive loss of nutrients. The term malnutrition refers to both under nutrition as well as over nutrition. However, sometimes malnutrition and protein energy malnutrition (PEM) are used interchangeably with undernutrition. A condition in which there is inadequate consumption, poor absorption or excessive loss of nutrients. The term malnutrition refers to both under nutrition as well as over nutrition. However, sometimes malnutrition and protein energy malnutrition (PEM) are used interchangeably with undernutrition.

CONCLUSION

Karshya is not only a disease, it's symptom of other diseases and Karshya not only produces complications, it is itself a complication of other disease. Both drugs (Karshyahar Louha Churna and Placebo Godhuma Churna) are effective in treating Karshya. But in this study Karshyahar Louha Churna was showed better results in observed parameter compared to placebo drug-Godhuma Churna may be due to its antioxidant activity or appetizer activity. Here with we reached the conclusion that the Karshyahar Louha Churna is 64.05% and the placebo drug Godhuma Churna has 46.28% clinical efficacy in the management of Karshya.

ACKNOWLEDGEMENT

The authors are indebted to Principal Dr. Ravi Prakash Singh, Dr. Prashant D Math and Dr. Manoj Agarwal of Rani Dullaiya Smriti

Ayurved Post Graduate College and Hospital, Bhopal (M.P), India.

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Cite this article as:

Tiwari Amar Singh *et al.* A Comparative clinical trial of Karshyahar Louha Churna and Placebo Godhuma churna in the management of Atikrisha patient with special reference karshya. *Int. J. Res. Ayurveda Pharm.* 2020;11(6):31-36 <http://dx.doi.org/10.7897/2277-4343.1106181>

Source of support: Nil, Conflict of interest: None Declared

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