

NUTRACEUTICAL EFFECT OF VIDARYADI GHRITHA IN KARSHYA

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ABSTRACT

Karshya is one of the burning problems in spite of many global wise remedial measures, which have been adopted to provide nutrition. The world health organization estimates that by the year 2015, the prevalence of malnutrition will have decreased to 17.6% globally. In the global campaign of health for all, promotion of proper nutrition is one of the 8 elements of primary health care.¹In modern nutrition, many supplementary foods are formulated by various experts. In Ayurveda, ample scope is present for incorporating compounds to improve nutritional status. *Krusha* is one of the *Astha nindita Purusha* which is explained in the classics of Ayurveda. *Karshya* is present in pure form or it may be associated symptom with other illness. Vidaryadi Ghritha is easily available which is brimhana and balya. *Vidaryadi Ghritha* is a unique formulation, which is a *Ghritha* form of *Vidaryadi gana*, which is *hridya*, *bhrimhana*, and *vata-pitta hara* properties. By looking above said prevalence of *Karshya*, this study proposes to evaluate *Vidaryadi Ghritha* compound in *Karshya*.

Keywords: *Vidaryadi Ghritha*, *Karshya*, under nutrition

INTRODUCTION

Ayurveda is a science of life, which deals with maintenance of health of a healthy person, and to cure the disease from the patient².The health of the nation depends on the health of its citizens. Humans have to suffer many problems related with health in day-to-day life. To overcome these problems he has to keep his body and mind strong and healthy. Studies in India have shown that nutritional deficiencies are widely persistent among adolescent population is due to which they becomes *Krusha & Durbala* both physically & mentally. A majority of the population in the developing countries suffer from malnutrition and under nutrition. On global scale, kwashiorkor, marasmus & nutritional anaemia are three principle nu-

tritional deficiency diseases that are being recorded the highest priority action. It forms one of the leading causes of mortality and morbidity in children as well as in adult population.

Global hunger index report ranked India 25th amongst leading countries with hunger situation.³ Increased population induced the poverty and that leads to the under nutrition. India remains home to the largest number of undernourished people in the world.⁴ *Karshya* is being one of the *vata-prakopa janya vyadhi* and the management is by *bhrimhana chikitsa* like *laghu santarpana*, *rasayana*, *vajikarana* are indicated.⁵

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AIM

Vidaryadi Ghritha acts as an effective nutritional remedy to overcome the problems faced by adults suffering from *Karshya*. So, the study was planned to evaluate the effect of *Vidaryadi Ghritha* in improving the nutritional status of *Karshya*. *Karshya* is a condition in which person goes on losing weight due to *rooksha anna paana, langhana, pramitashana* etc. He cannot tolerate *Sheetha-Ushna, Trushna* can easily get affected with other diseases. *Vyadhi bala viroditwa* and *Vyadhi utpada pratibandhakatwa* is reduced. This is because of *rasa, raktha, mamsa Dhathu kshaya*, which leads to *shareerabala kshaya*. So *Dosha-Dhathu- Mala* impairment seen as a result *karshya* found to be one of the *nidana* for many diseases.

Derivation: *Krusha* word is derived from “*krusha tanu karane*” dhatu⁶, which means – *Alpa, Sookshma, Ksheena* (lean or emaciated)

Nirukti:

- Presence of *Krusha Bhaava* denotes *Karshya*.⁷
- That which causes *mamsa hinatha* or *mamsa kshaya*.⁸
- *Karshya* is that which leads to leanness.
- *Krusha* means – *Alpa* - decreased body weight.
Sookshma – Intolerance due to decreased nutrition
- As per Monier William’s dictionary the word *Krusha* means lean, emaciated, thin, weak, and feeble.⁹
- The word *karshya* denotes emaciation or thinness.
- The meaning of *krusha* according to *Ayurvedeeya Shabda Kosha* is – *Amedasvi, Durbala, Alpa mamsa, Nirmamsa*.

- *Krushata* is the result of *shoshita rasadhathu* causing decrease in *mamsa* of *shareera*.¹⁰
- *Karshya* is *Rasapradoshaja Vikara*.¹⁰
- Suppression of *Kshudha* leads to *Vata Prakopa* resulting in *Karshya*.

NIDANA

Karshya in the form of *Praakruta Avastha*:

There is no doubt that *Karshya* is a disease but in some physiological condition of the human body, *Karshya* is seen naturally i.e, there is no pathological abnormalities. Those conditions are as follows.

1. ***Vata Prakruti***: - *Krushata* is one of the main features in *Vata Prakruti* person (Sha. Poorva.Kha.6/20).¹¹ According to *Bhavaprakasha* – at the time of fertilization, if *Shukra Bhaga* of father is more & less portion of *meda* is present, then the offspring born is *Krusha*.⁴⁰ *Vata Dosha* is predominant in *Vata Prakruti* person. That is why *Shareera Dhatus* are in *Ksheenavastha* level & the person is naturally *Krusha Shareera*. Here it is not considered as *Krusha* or *Karshya Roga*.

2. ***Krusha Deha***: *Sushruta* has explained *Trividha Deha Vibhaga*, in that *Krusha Deha* is one such classification & *Brihmana* is the line of treatment. In this condition due to presence of *Alpa Mamsa Dhathu & Alpa Meda Dhathu*; the nourishment becomes very poor. That is why the person becomes *Krusha*.

3. **In *Garbhini Avastha***: At the time of 5th & 6th month due to the growth & development of the foetus, the *Garbhini* becomes *Krusha*. Particularly for this period, the nutrition is very essential for the foetus. Foetus is completely depending on mother. That is why *Brihmana Chikitsa* is needed in 5th & 6th month. Here also *Karshya* is one of the symptoms.¹²

4. In Vruddhavastha: - In Vruddhavastha depletion of *Rasa-Raktadi Dhatu* are seen as natural phenomena (due to time factor); due to *Vata Dosha Pradhanyata* in the old age; the body becomes *Krusha*. Here it is also one of the symptoms only & *Yapana* is to be done for the same.¹³

5. Kaala – Adana Kaala: - In *Adana Kaala*, naturally the body becomes *Ruskha*. Due to the increase of *Rookshata* in the body, the *Vata Dosha* get aggravated & *Rasadi Dhatu* becomes *Ksheena*. So naturally, *Krushata* is seen. The treatment mentioned for this is to take *Vata Shamaka Guru-Snigdhaadi Ahara* in *Dinacharya*, *Rutcharya* & doing *Divasvapna* is necessary. These are the *Prakruta Nivarana Hetu's* told by our Acharyas.

In *Grishma rutu*, there is clear cut indication for *Divasvapna* & told that *Brihmana Chikitsa* is essential for all.

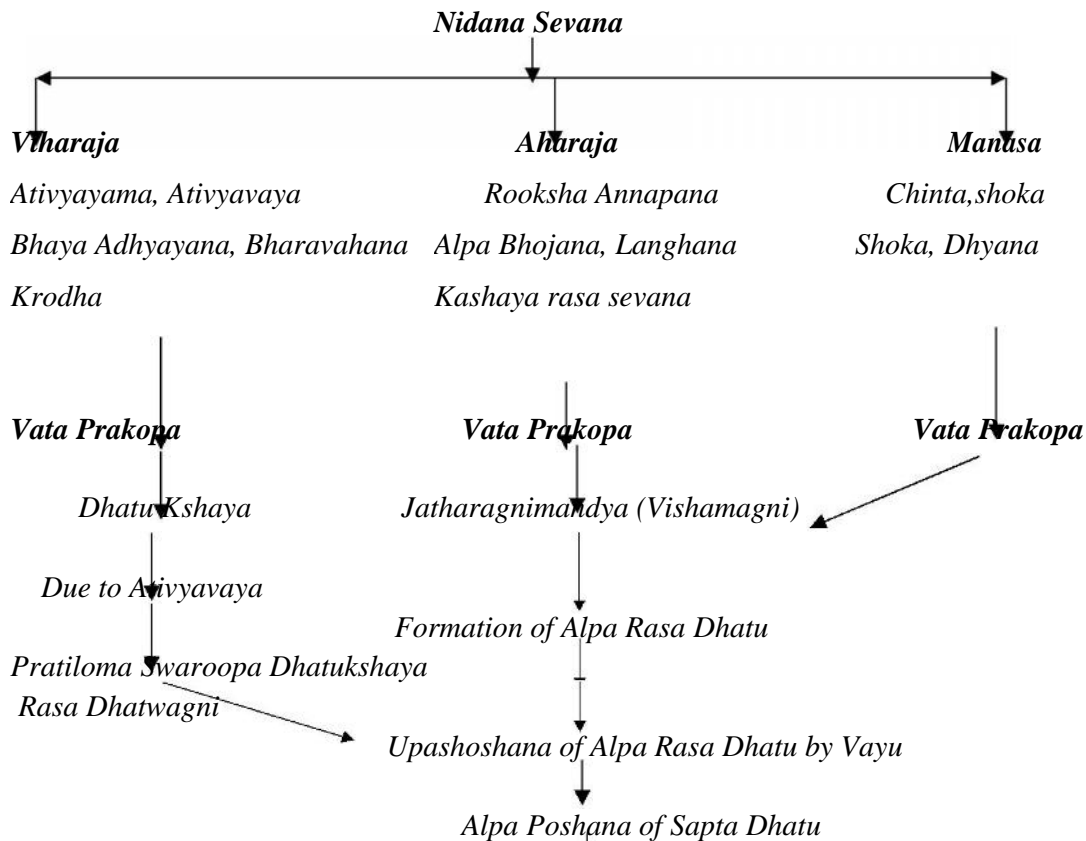
Therefore, by the above explanations, we come to conclusion that, *Karshya* is one of

the *Lakshana*, which is seen in much natural as well as healthy state. For this no treatment is necessary.

PROBABLE COMPARISON

In our samhithas there is no direct reference available regarding the symptoms of *karshya*. So signs and symptoms of *atikarshya* can be considered as as signs and symptoms of *karshya*. They may appear in mild form in *karshya*. As in *karshya mamsa kshaya* is seen¹⁴. So a person having lean and thin body does not have any other complaints is *krisha*. It can correlate to underweight or under nutrition. There are many nutritional deficiency disorders where weight loss may not occur. Therefore, not all-nutritional deficiency can be correlated to *karshya*. Nutritional deficiency, where the weight loss is the main event, can be taken as *karshya*. Under nutrition is widely recognized as major health issue in developing countries of the world¹⁵.

Schematic representation of the Samprapti



Dhatu Kshaya



Karshya

Ingredients of vidaryadi ghrita

Drug	Botanical neme	Rasa	Guna	Veerya	Vipaka	Karma
Vidari	<i>Pueraria tuberosa</i>	Madhura	Guru snigdha	Sita	Madhura	V-P shamaka
Eranda	<i>Ricinus communis</i>	Madhura katu kashaya	Snigdha guru tikshna	Ushna	Madura	K-V shamaka
Vrischikali	<i>Helitropium indicum</i>	Katu	Ushna	Ushna	Katu	Vatakara hrit shudhikrit balya
Punarnava	<i>Boerhaavia diffusa</i>	Madhura tiktha kashaya	Laghu rooksha	Ushna	Madhura	Tridosahara
Bala	<i>Sida cordifolia</i>	Madhura	Guru snigdha pishchila	sita	Madhura	Vata pitta shamaka
atibala	<i>Abutilon indicum</i>	Madhura tiktha katu	Guru pishchila	Sita	Madhura	Vata pitta shamaka
Mudgaparni	<i>Atylosia goensis</i>	Madhura tiktha	Laghu ruksha	Sita	Madhura	Vata pitta shamaka
Mashaparni	<i>Teramnus labialis</i>	Madhura katu	Laghu snigdha	Sita	Madhura	Vata pitta shamaka
Kandukari	<i>Mucuna puriens</i>	Madhura tiktha	Guru snigdha	Ushna	Madhura	Vata shamaka
Abhiru	<i>Asparagus racemosus</i>	Madhura tiktha	Guru snigdha	Sita	Madhura	Vata pitta shamaka
Jivanthi	<i>Leptadenia reticulate</i>	Madhura	Laghu snigdha	Sita	Madhura	Vata pitta shamaka
Jivaka	<i>Sub.Pueraria tuberosa</i>	Madhura	Guru snigdha	Sita	Madhura	Vata pitta shamaka
Rishabhaga	<i>Sub.Pueraria tuberosa</i>	Madhura	Guru snigdha	Sita	Madhura	Vata pitta shamaka
Brahathi	<i>Solanum indicum</i>	Katu tiktha	Laghu ruksha	Ushna	Katu	Kapha vata hara
Kandakari	<i>Solanum xanthocarpum</i>	Katu tiktha	Laghu ruksha	Ushna	Katu	Kapha vata hara Agnikrit
Gokshura	<i>Tribulus terrestris</i>	Madhura	Guru	Sita	Madhura	Vata pitta

	<i>restris</i>		<i>snigdha</i>			<i>shamaka</i>
Prishniparni	<i>Uraria picta</i>	<i>Madhura tiktha</i>	<i>Laghu ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	Tridosha shamaka
Shaliparni	<i>Desmodium gangeticum</i>	<i>Madhura tiktha</i>	<i>Guru tik-thaa</i>	<i>Ushna</i>	<i>Madhura</i>	Tridosha shamaka
Gopasuta	<i>Hemidesmus Indicus</i>	<i>Madhura tiktha</i>	<i>Guru snigdha</i>	<i>Sita</i>	<i>Madhura</i>	Tridosha hara
Tripady	<i>Desmodium inflorum</i>	<i>Madhura</i>	<i>Guru grahi</i>	<i>Sita</i>	<i>Madhura</i>	Vata kapha shamaka
Ksheeram	<i>Cow milk</i>	<i>Madhura</i>	<i>Snigdha guru</i>	<i>Sita</i>	<i>Madhura</i>	Vata pitta shamaka
Ghritha	<i>Ghee</i>	<i>Madhura</i>	<i>Guru snigdha pishchila</i>	<i>Sita</i>	<i>Madhura</i>	Snehana balya

Result

Effect of Vidaryadi Ghritha on Hematological Parameters:

Effect on HB percentage:

Before treatment, the mean score of haemoglobin was 12.27, which increased to 13.47 after 30 days. In *Mridweekadi* group 8.9 % of improvement provided by the

therapy and statistically significance at the level of $P < 0.001$, whereas in *Vidaryadi ghritha* group mean score before treatment was 12.27, which was increased to 12.98 after 30 days. The statistical improvement shown was 5.54% which also was significant at the level of $P < 0.001$.

Table- 01: Effect of Vidaryadi Ghritha on Haematological Parameters of 20 Patients of Karshya

Hb%	Mean BT	Mean AT	% age of Improvement	S.D. (±)	S.E. (±)	't' Value	'P' value
VGG	12.27	12.98	5.46	0.50	0.11	-10.53	0.001
MAG	12.26	13.47	8.9	0.79	0.17	-0.4.06	0.001

Effect on Serum protein: Before treatment, the mean score of Serum protein in *Vidaryadi Ghritha* group was 7.04, which increased to 7.23 after 30 days. The

3.04% of improvement provided by the therapy and are statistically significance at the level of $P > 0.05$.

Table-02: Effect of Vidaryadi Ghritha on Serum protein of 20 Patients of Karshya

Serum protein	Mean BT	Mean AT	% age of Improvement	S.D. (±)	S.E. (±)	't' Value	'P' value
VGG	7.01	7.23	3.04%	0.359	0.080	0.013	>0.05

Effect on Serum albumin: Before treatment, the mean score of Serum albumin in *Vidaryadi Ghritha* group was 4.67, which increased to 4.75 after 30 days.

The 1.68% of improvement provided by the therapy and are statistically significance at the level of $P > 0.05$. (Table-42)

Table-03

Effect of Vidaryadi Ghritha on Serum albumin of 20 Patients of Karshya

Serum	Mean	Mean	% age of Im-	S.D.	S.E.	't'	'P' val-
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albumin	BT	AT	provement	(±)	(±)	Value	ue
VGG	4.67	4.75	1.68%	0.208	0.080	0.046	>0.05

Comparative effect of vidaryadi ghritha with Mridweekadi Avaleha

The Table shows that there was no significant difference found in im-

Table no. 04

Showing the statistical values of unpaired t-test

PARAMETER	M.DIFF	SE	t-value	p value	Interpretation
WEIGHT	-.61850	0.3609	-1.713	>0.05	NS
BMI	-.26300	0.14658	-1.794	>0.05	NS
NC	-.45000	.17302	-2.601	<0.05	NS
MUAC RT	.57500	.44259	1.299	>0.05	NS
MUAC LT	0.000	.20049	.000	>0.05	NS
MTC RT	-.27500	.78930	-.348	>0.05	NS
MTC LT	.65000	.57325	1.134	>0.05	NS
AC	.12500	.48078	.260	>0.05	NS
WHR	-.00800	.00584	-1.370	>0.05	NS

DISCUSSION

A clinical study on the patients presenting with features of *Karshya* was carried out. 20 subjects who were fulfilling the selection criteria were selected. The results obtained are compared with *Mridweekadi Avaleha* (standard control group). 1 BD of *Chitrakadi Vati* was administered for 2 days or till attainment of *Nirama lakshana*, *Agnideepti* and *Sroto vishodhana*. This might help in better digestion and absorption of the administered medicines. It is *Katu*, *Tikta Rasa*, *Laghu Ruksha*, *Teekshna Guna* and *Ushna Virya* and improves *Agni* and act as *Vatanulomaka*. Prevalence is more in developing country like India, which alarms the medical faculty for better option like *Vidaryadi Ghritha* as it is *Hridya*, *Brimhana* and *vata-pitta hara* properties and having proven antioxidant properties. Since it is a *Ghritha* form, which is considered as best among all *sneha dravyas* gives *snehana* to tissues, thus nourishes the body. *Ghritha* contains fat that functions as a structural element of the cell and it is major source of energy. *Ghritha*

proving the various parameters of *Karshya*, between *Vidaryadi Ghritha* and *Mridweekadi Avaleha* group at a significance level of ($p < 0.5$)

contain medium chain triglycerides, which are immediate source of energy. Medium chain triglycerides improves the metabolic rate, spare the muscle glycogen and improves physical endurance.¹⁰² It poses *Brimhaniya*, *Balya*, *Rasayana*, *Jivaniya*, *Vatahara Karma* and hence commonly used in *Daurbalya*, *Kshaya*, *Shosha*.¹⁰³ *Ghritha* is considered as *ajanma-satmya*, so everyone used to take *ghritha* and palatability is also good as it is in liquid form medicine.

Vidaryadi Ghritha having a property of *Madhura Rasa* and *Madhura-Vipaka*, which has *Vata Shamaka* effect. The *Sroto shodhaka* property of formulation helps in the clearance of channels and improves the circulation of *Dhatus* and this indirectly helps in nourishment of *Dhatus*. Which means it is responsible for *Uttarottara Dhatu Poshana*. *Vatanulomaka* and *Pitta shamaka* property of formulation helps in balance and maintenance of *Agni* and ultimately causes *Samyak Aharpaka*. *Vrishya* property helps in triglyceride synthesis, which is *Deha vridhikara Bhava*. On the

other hand, Guru, Shita, Snigdha and Mridu Gunas are directly responsible for Brimhana effect in body. Rasayana property improves general health and immunity. Jivaniya property maintains equilibrium of Dosha, Dhatu and Malas. Apart from this Ghritha has a remarkable property to assimilate the properties of other drugs when added to it without losing inherent properties. (Samskarasya anuvartanam)

The digestibility coefficient or rate of absorption is 96%, which is highest of all oils and fat. It contains 8% less lower saturated fatty acids, which makes it easily digestible. Thus net protein utilization enhanced which leads to proper metabolism and absorption of protein and nutrients. Ghee also contains beta-carotene and Vitamin E, which are antioxidants themselves. Ghee helps to provide extra calories needed to gain weight since which contributes a considerable percentage of total energy intakes. Essential fatty acids found in ghee are very beneficial for cell development. Isoflavone present in Vidari is a free radical scavenger and polyphenol modulate hepatic cholesterol metabolism and reduce inflammation in GIT.¹⁰⁴

Probable mode of action can well explained in the ground of Guna panchaka. It is found that majority of ingredients have predominance of guru, snigdha, madhura rasa, madhura vipaka and sheetha veerya. Absorption and delivery to the target is crucial in obtaining the maximum benefit from any formulation. This is facilitated by Vidaryadi Ghritha through lipophilic nature. It helps and accelerates the bioavailability of the nutrients.

All this establishes that Vidaryadi Ghritha has an effective role in the greater utilization of protein and other nutrients thus improve the nutritional status.

CONCLUSION

- Efficacy Vidaryadi Ghritha is proven based on the clinical study in Karshya. The results were statistically significant and all the patients responded to the treatment.
- Based on the results obtained from this study, majority of the parameters showed significant results in both the groups. However, there was no much difference in the results between the groups. As a result, both Vidaryadi Ghritha and Mridweekadi Avaleha can be adopted as treatment modalities for the management of Karshya. Hence, null hypothesis was rejected.
- Between both groups, Mridweekadi Avaleha (standard control group) displayed better effect when compared with Vidaryadi Ghritha (study group). Vidaryadi Ghritha showed better efficacy in improving sleep compared with Mridweekadi avaleha.
- Vidaryadi Ghritha can be compared with nutraceutical but not with functional food or dietary supplement.
- It can be concluded that Vidaryadi Ghritha can be used effectively for weight gain in Karshya as there is more improvement as compared with diet programme alone.

As Vata Dosha is predominant in Karshya, usage of ghritha is more efficient as main ingredients are all Madhura in Vipaka having snigdha guna and yogavahi properties.

REFERENCE

1. Gillespie, Stuart and Lawrence Haddad 2001. Attacking the double burden of Malnutrition in Asia and the Pacific, DC: International food policy research institute.
2. Acharya J T. CharakaSamhita of Agnivesa with Ayurvedadeepika commentary. Reprint ed. Varanasi (India): ChaukhambhaSurbharatiprakashan; 2009. p.187.

3. K. von Grebmer, J. Bernstein, A. de Waal, N. Prasai, S. Yin, Y. Yohannes: 2015 Global Hunger Index - Armed Conflict and the Challenge of Hunger. Bonn, Washington D. C., Dublin: Welthungerhilfe, IFPRI, and Concern Worldwide. October 2015
4. Faorg. 1. Faorg. [Online]. Available from: <http://www.fao.org/3/a-i4646.pdf> (accessed on 29 March 2016).
5. Acharya J T.CharakaSamhita of Agnivesa with Ayurveda deepika commentary. Reprint ed.Varanasi(India): ChaukhambhaSurbharatiprakashan; 2009. p.114.
6. Tarka vachaspati ST. Vachaspatyam. 3rd edition, Varanasi: the chowkhamba Sanskrit series office; vol 3.p.2195.
7. Haragovinda sastri. Amarakosa of Amarsimha with ramasrami (vyakya-sudha) commentary of Bhanuji Diksita (ramasrama) 4th edition, Varanasi: chaukhambha Sanskrit sansthan;p.498-9.
8. Concept of Brimhana w.s.r to Karshya, Namjoshi M 1994, B.P.Dept.
9. Monier monier Williams. A English Sanskrit dictionary, 1st edition, new delhi: bhartiya granth nikan; 2006. p. 443.
10. Muthy KRS. Susrutha samhitha with English translation. Reprint, Varanasi: chowkhambha Orientalia; 2012. vol 1.p.107.
11. Muthy krs. Bhavaprakasa of bhavamisra. Reprint, Varanasi: chowkhambha Sanskrit series office; 2002. vol 2.p.513-4.
12. Yadavji trikamji. Charaka Samhita by agnivesha revised by Charaka and dridhabala with the Ayurveda deepika commentary of chakrapani dutta. Reprint ed. Varanasi: chaukhambha orientalia; 2011.p.320.
13. Yadavji trikamji. Charaka Samhita by agnivesha revised by Charaka and dridhabala with the Ayurveda deepika commentary of chakrapani dutta. Reprint ed. Varanasi: chaukhambha orientalia; 2011.p.280.
14. Sharma PV. Susrutha samhitha with English translation and dalhana commentary. 3rd ed, Varanasi: chaukhambha visvabharati; vol 1, 1999.p. 169.
15. Olaf muller, Michael krawinkel. Malnutrition and health in developing countries. Malnutrition. 2005;173(3): 279-286.

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