

Clinical Evaluation of Haridra & Chitrak in the Management of Medoroga (Obesity)

Dr. Mita Kotecha, Dr. K. Shankar Rao***

ABSTRACT

Obesity is a metabolic disorder, generally occurring in affluent societies, because of imbalance between energy intake and energy expenditure. It is associated with mortality and predisposes to the development of fatal diseases viz. Diabetes, Hypertension, M.I, etc. Hence there is an immense need to explore an effective medication for this disorder.

This clinical study was conducted on Haridra (*Curcuma longa*) and Chitrak (*Plumbago zeylanica*). The selected drugs have potent lekhana action and belong to Lekhana group of herbs as described in Charaka samhita (Ch.Su.4). Lekhana is a process of emaciation, drying up or desiccation of all excess Dosha, Dhatu and Mala (Dalhan Su.Su.40:50 Bhavprakash Pu.Kh.6:224). Thus Lekhana drugs ought to have potent anti obesity action.

Both drugs were found effective against cardinal as well as general symptoms of Medovridhi, though efficacy of Chitrak was found to be better than Haridra.

सारांश

स्थूलता का प्रमुख कारण शरीर को आहार से प्राप्त ऊर्जा तथा उपयोग में ली ऊर्जा का असंतुलन है। यह चयापचय प्रक्रिया में अवांछनीय परिवर्तन के फलस्वरूप उत्पन्न व्याधियों का समूह है, जो कि धनाढ्य समाज में साधारण है। स्थूलता अनेक व्याधियों के पूर्वरूप व लक्षण के रूप में वर्णित है यथा मधुमेह, उच्च-रक्तचाप तथा हृद्रोग आदि। अतः स्थूलता की चिकित्सा के लिये उपयुक्त तथा सर्वसुलभ औषध-चिकित्सा आवश्यक है।

उपस्थित चिकित्सीय शोध आयुर्वेदिय औषध द्रव्य हरिद्रा तथा चित्रक के लेखनीय प्रभाव पर आधारित है। यह दोनों द्रव्य चरक संहिता में लेखनीय महाकषाय के अन्तर्गत वर्णित हैं। लेखन-कर्म शरीर के वृद्धदोष, धातु, मलों का लेखन कर बाहर निकाल शरीर में कृशता उत्पन्न करता है अतः उक्त लेखनीय द्रव्य स्थूलता के विपरीत कर्म करने में समर्थ सिद्ध है।

प्रस्तुत शोध से ज्ञात होता है कि हरिद्रा व चित्रक मेदोवृद्धि के सभी रोगियों में लाभदायक है एवं चित्रक हरिद्रा की तुलना में अधिक कार्यकर है।

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INTRODUCTION:-

Obesity is a metabolic disorder, generally occurring in affluent societies, because of imbalance between energy intake and energy expenditure. It is associated with mortality and predisposes to the development of fatal diseases like- Diabetes, Hypertension, M.I, etc. Higher socio economic group of the society leading to sedentary life style is more vulnerable to Medoroga. There is an excessive accumulation of fat in the patient affected from Medoroga. Cretain drugs like steroids, oral contraceptives, phenothiazines & insulin are supposed to cause Medoroga.

The Ayurvedic classics describe various endogenous and exogenous causes for medho dhatu vriddhi(excess depositions of fat tissue in body)

- (1) Dietary Causes
- (2) Regimental or behavioral causes
- (3) Psychological causes
- (4) Miscellaneous causes, which includes age, sex improper Administration of certain therapeutic measures etc.

In Ayurveda classics many times, both the words medovriddhi & Staulya are used as synonyms of each other .But Charaka samhita has clearly established the two conditions as separate entities. The samprapti of both Medovriddhi and Staulya is one and the same. However, medovriddhi is the first stage of Staulya i.e. overweight. If medovriddhi continues further, it turns into disease Sthaulya . We hardly come across any complications of Medovriddhi, while Staulya is the root cause of hazardous complications viz.Hridroga(heart disease), Prameha (diabetes) etc.

Hence there is an immense need to explore an effective medication for this disorder. Many Ayurvedic formulation viz.Arogya vardhini, Vyoshadi guggulu, Pushkar Brahmi guggulu etc.are already proved as anti-obesity drugs. In the same series,this clinical study was

conducted on Haridra (*Curcuma longa*) and Chitrak(*Plumbago zeylanica*).

The selected drugs belong to Lekhana group of herbs as described in Charaka Samhita. Lekhana is a process of emaciation, drying up or desiccation of all excess Dosha, Dhatu and Mala (Dalhana on su.su.40:50, Bhavprakash, Pu.Kh.6:224) thus Lekhana drugs ought to have potent anti-obesity action.

AIMS AND OBJECTIVES OF THE STUDY:-

1. To do a scientific study on Lekhana Karma
2. To explore the clear pathogenesis of Medovriddhi
3. To find out the relation of Medovriddhi with that of age, sex, religion etc.
4. To find out easily available and cheap Lekhaneeya drugs
5. To evaluate clinically the Lekhana Karma of Haridra and Chitrak

SELECTION OF DRUG:-

Haridra and Chitrak are among the 10 drugs of Charaka's Lekhaneeya Dasaimani group. Both the drugs attain special significance among the other drugs of Lekhaneeya group, being endowed with the basic requisites for effective Lekhana Karma, namely ruksha,laghu and tiksha guna, ushna virya,katu vipak and also deepan & pachan properties.

MATERIALS & METHODS:-

The patients attending the OPD section of I.P.G.T&R. hospital at Jamnagar, Gujrat and with the characteristic feature of Medovriddhi were selected for the present study; simple random sampling technique was adopted for the selection of patients.

CRITERIA FOR SELECTION OF PATIENTS:-

- ❖ Patients of Medovriddhi, are selected according to L.I.C standard height weight index. Anyone

weighing up to 20% more than their standard. Weight was considered overweight and over 20% was considered to be obese.

- ❖ Routine Pathological Investigations were carried out to exclude any other systemic disease.

CRITERIA OF ASSESSMENT:-

- ❖ Skin-fold thickness or subcutaneous fat measurements
- ❖ Circumference of mid arm, abdominal girth, measurements of hip and chest
- ❖ Body weight as compared to height, weight chart of L.I.C standard.
- ❖ Screening for total Lipids, Serum Cholesterol, H.D.L, S.G.O.T., S.G.P.T. and Serum amylase.
- ❖ Clinical associated symptom viz. Snidhagatrata, Swedadhikya, Kshudhadhikya etc were considered
- ❖ Depending on the severity of symptoms, score was given individually to each symptom.

“O”→ ABSENCE OF SYMPTOM

“1”→ MILD DEGREE OF SYMPTOM

“2”→ MORDERATE DEGREE

“3”→ SEVERE DEGREE OF SYMPTOMS

GROUPING AND DRUG ADMINISTRATION METHOD:-

The patients were selected and randomly grouped as follows.

Group A:-

Drug: - Chitrak powder in a dose of 500mg/4 times a day, in capsule form.

Group B:-

Drug: - Haridra powder in a dose of 1gm/4 times a day, in capsule form.

Group C: - (control group)

Drug: - Wheat powder in a dose of 500mg/4 times a day in capsule Form

Duration: - The duration of the treatment for all the 3 groups was 45 days

DIET, RESTRICTION AND EXERCISE:-

A restricted diet schedule of low calorie diet was advised to ensure the effectiveness of the therapy. Some exercise viz. walking was also advised to evaluate the role of vihara in management of Medovridhi.

Table-1

Effect of Chitrak and Haridra on skin fold thickness, various circumferences and body weight

Parameters	Chitrak				Haridra			
	Mean Diff.(%)	S.E±	t	p	Mean Diff.(%)	S.E±	t	p
Abdomen skin fold thickness	15.82	0.29	2.88	<0.05	17.37	0.28	3.2	<0.05
Triceps skin fold thickness	14.79	0.19	3.62	<0.05	32.72	0.28	3.49	<0.05
Biceps skin fold thickness	21.8	0.22	4.6	<0.01	22.72	0.4	2.48	<0.05
Abdomen circumference (cms)	3.34	0.49	6.74	<0.001	3.34	0.49	6.74	<0.001
Mid arm circumference (cms)	9.94	1.24	2.5	<0.05	9.94	1.24	2.5	<0.05
Chest circumference (cms)	2.81	68	4.04	<0.01	2.81	68	4.04	<0.01
Hip circumference (cms)	3.07	0.14	2.91	<0.05	3.07	0.14	2.91	<0.05
Body weight	3.18	0.36	6.26	<0.001	3.18	0.36	6.26	<0.001

TABLE 2. Showing over all effect of therapy

Effect	Group A	Imp (%)	Group B	Imp.(%)	Group C	Imp.(%)	Total	Imp.(%)
Cured	0	00	0	00	0	00	0	00
Markedly Improved	0	00	0	00	0	00	0	00
Moderately Improved	5	71.42	3	50	0	00	8	42.10
Improved	2	28.57	3	50	4	66.67	9	47.37
No relief	0	00	0	00	2	33.33	2	10.53

Cured : - 20% reduction in weight Markedly Improved : - 19 to 10% reduction in weight
 Moderately Improved : - 10 to 5 % reduction in weight Improved : - 5 to 1% reduction in weight
 No Relief : - No reduction in weight

DISCUSSION & RESULTS :-

The reduction in Biceps skin fold thickness was significant at <0.01 level, but the reduction in the triceps and abdominal skin fold was only significant at <0.05 level. (Table 1) The drug was effective in reducing abdominal triceps & biceps skin fold thickness are found statistically significant at <0.05 level

Placebo was found ineffective in reducing all the skin fold thickness. Result were also statistically insignificant. (Table.1)

The drug Chitrak is highly significant in losing the weight of the patients of the group ($P < 0.001$). It is also statistically significant in all the body circumferences (Table 1).

The abdominal circumference and body weight was reduced at the level of $P < 0.001$, whereas chest circumference was reduced at the level of $P < 0.01$. Reduction in mid arm and hip circumference was only significant at the level of $P < 0.05$

It was observed that in placebo group reduction in all the circumference except mid arm was insignificant, whereas P value of mid arm circumference was significant at level of .05 (Table 1)

The efficacy of any drug cannot be proved unless it is subjected to clinical trials and supported by relevant statistical data, on overall assessment (Table 2) it was found that maximum (71.42%) patients in Chitrak group were moderately improved, whereas in Haridra group its percentage was 50. Improvement was observed in 14.28% patients of Chitrak group & 50% Haridra & 66.67% of control group. None of the patients from all the groups have complete or markedly improved. The

discussion clearly shows that the improvement was observed in all groups. It was because of strict dietary regimen & exercise advised to all the patients.

CONCLUSION:-

The present study may be considered as pilot study, considering all the factors. It is to conclude that, both the drugs (Chitrak & Haridra) are effective against cardinal as well as general signs & symptoms of Medovridhi in patients. Efficacy of Chitrak is better than Haridra in the alleviation of symptoms of Medovridhi.

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