CLINICAL EFFICACY OF TRIPHALADI GHRITA NASYA AND BHADRAMUSTADI CHURNA PRATISARAN WITH NAGARADI KWATHA GANDUSH IN SHITADA (GINGIVITIS)

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ABSTRACT :

Shitada is one of the *Dantamoolagata Rog* mentioned by Acharya Sushruta under the *MukhaRogas* in *Nidansthan* while Acharya Vagbhata mentioned in Uttartantra under *MukhaRogas.* It is characterized by symptoms like halitosis, blackish discoloration, spontaneous bleeding and so on. The symptoms of *Shitada* can be compared with Gingivitis, which is caused mainly by ignorance of oral hygiene methods. The gingivitis may alter the firmness, contour, position of gums. The prevalence of gingivitis is very high of the total oral diseases. In present study a total of 37patients were registered in three groups. *Tripaladigrita* has been used for *Nasya* in group 1. In group 2, *Bhadramustadi Churna* for *Pratisaran* with *Nagaradi Kwatha Gandush* was used. Combined therapies were given in group 3. The patients were diagnosed on the basis of Ayurvedic and Modern signs, symptoms and Indices and the scoring pattern adopted to assess the effect. Statistically, combined therapies (*Nasya*, *Pratisaran* and *Gandush*) were found to be highly significant and effective management.

Key words: *TriphaladighritaNasya*, *BhadramustadichurnaPratisaran*, *Nagaradikwatha Gandush*, *Shitada*, Gingivitis.

INTRODUCTION: Acharya Sushruta had been classified the disease of *Mukh* according to seven sites of the buccal cavity [1]. *Shitada* is one of the diseases of *MukhaRogas*, known as *Dantamoolagata Rogas* [2] characterized by spontaneous bleeding without any injury due to vitiated *Kapha* and *Rakta*[3]. The symptoms of *Shitada* can be considered as Gingivitis [4]. Gingivitis, an inflammation the marginal gingival occurs widely in most population and its prevalence is 50% due to deficient oral health care [5] The prevalence of the disease gingivitis is very high. In Gujarat, the prevalence was found to be 74.45%[6]. It can progress to more serious conditions like periodontitis, which is responsible for tooth loss by altering the contour and position of the gingiva [7].At present, the modern management of gingivitis is not satisfactory as mechanical removal of plaque and debris by scaling causes trauma to the gums, use of chemicals that is mouth wash, irrigation and so on are expensive as well as time consuming and the last treatment of choice is surgery which is not completely safe in all cases. So prevention and the control of gingivitis are essential in every case.In Ayurveda, Sushruta and other authors have recommended Bloodletting, *Pratisaran*a, *Gandush*a and *Nasya* in the management of *Shitada* [8]. Management of *Shitada* can be broadly classified into local and systemic measures. Treatment of *Shitada* begins with *Rakta*mokshana to relieve *Rakta Dusti*. Local treatment includes *Pratisaran*a and *Gandush*a in the management of *Dantamoolgat Rog*, as both expels the localized Doshas[9]. *Nasya* is considered as a gateway for drug administration for *Urdhwajatrugata Rogas*. *Shitada* is the

Rakta predominant disease; [10] the drugs like *Triphala* should be processed with *Ghrita* for *Nasya.*[11] Which alleviate the vitiated *Rakta* by nasal rout. The importance of oral hygiene was well-known to the early era. The procedures for the cleanliness of oral cavity are a part of the *Dincharya.* [12] There is no doubt, that oral hygiene also has an important role in the maintenance of general body health. It is a fact that if a person does not follow the rules of oral hygiene, he suffers from various *Dantamoolgata Rogas* and may as infective focus in teeth is able to cause systemic disease [13].Although, the prevalence of the disease *Shitada* is very high, No previous works have been carried out on *Shitada* and its management. This is for the first time; the treatment modality including *Nasya* is taken for research work as the management of periodontal disease. Ayurveda has mentioned some therapeutic remedies for the management of *Shitada*. The response of the medications can be easily assessed with the help of Modern Science. Hence, in the present research work, the efficacy of the *Nasya* and local treatment *Pratisaran* and *Gandush* in *Shitada* were studied clinically and results were presented statistically.

AIMS AND OBJECTIVES

1. To evaluate the efficacy of *Triphaladi Ghrita Nasya* in *Shitada*.
2. To evaluate the efficacy of *Bhadramustadi Churna Pratisaran* and *Nagaradi Kwatha Gandush* in *Shitada*.
3. To evaluate efficacy of *Nasya* and local treatment both in *Shitada*.

MATERIALS AND METHODS:

Clinical study: The patients attending the OPD of Shalakya department of I.P.G.T. & R.A. hospital, Gujarat Ayurved University, Jamnagar, provided the material for clinical study and selection of was done randomly irrespective of age, sex, religion, occupation etc. fulfilling the criteria of selection and eligibility for the study.

INCLUSION CRITERIA:

1. Patients presenting with signs and symptoms of *Shitada*, described as per Ayurvedic and gingivitis as per Modern dentistry.
2. Patients were diagnosed with the help of dental mirror, dental probe and periodontal Pocket probe full filling the criteria of *Shitada* as well as Gingivitis

EXCLUSION CRITERIA:

1. Patients with pus discharge from gums.
2. Patients with periodontal pocket.
3. Patients having any systemic disease which cause Gingivitis.
4. Patients using any other systemic drugs which may alter the result of the study.

PLAN OF WORK:

1. Research proforma : A detailed proforma was prepared to study including the patients and disease as Ayurvedic and modern points of.
2. Investigations: Routine haematological, urine, stool and blood sugar level analysis were done to rule out systemic diseases, if any.

GROUPING AND TREATMENT SCHEDULE

Group 1**:** *Nasya* group

Drugs: *Triphaladi Ghrita*.

Dose: 16 drops in each nostril

Duration*:* 3 sittings of *Nasya* for 7 days followed by 7 days interval.

Group 2 **-** Local treatment group

Drugs: *Bhadramustadi Churna* for *Pratisaran*a along with *Nagaradi Kwatha* for *Gandush*a

Dose: *Bhadramustadi Churna* - 2 grams with honey for *Pratisaran*a twice a day

Nagaradi Kwatha - 20 ml *Kwatha* for *Gandusha* twice a day after *Pratisaran*a.

Duration: 1 Month.

Group 3 – Combined group

Drugs: *Triphaladi Ghrita*, *Bhadramustadi Churna*, *Nagaradi Kwatha*

Dose and Duration: as per above schedule.

Triphaladi Ghrita (su.chi.22/12):

The *Triphaladi Ghrita* was prepared according to the standard method of preparation of *Ghrita*, by the pharmacy of Gujarat Ayurveda University.

Ingredients

The ingredients of *Triphaladi Ghrita* are:

Kalka drugs:

1. *Amalaki*
2. *Bibhitaki*
3. *Haritaki*
4. *Yashti* – 1/6th part each to make one part

Sneha drug:

1. *Goghrita* - 4 parts

Drava Dravya:

1. Water - 8 parts

Bhadramustadi Churna (Bh.ra.61/16):

The *Bhadramustadi Churna* contains drugs, which were selected by virtue of their properties. It was meant *Pratisaran* with honey in Group 2 and in combined Group 3.

Ingredients

1. *Musta* -1 part
2. *Haritaki* - 1 part
3. *Shunthi* - 1 part
4. *Maricha* - 1 part
5. *Pippali* - 1 part
6. *Vidanga* - 1 part
7. *Nimba* - 1 part
8. Honey- Quantity sufficient

Nagaradi Kwatha (su.chi. 22/11):

The *Nagaradi Kwatha* was selected for *Gandusha* along with *Pratisaran*a. It was meant for oral hygiene supplementation therapy in the management of *Shitada*.

Ingredients:

1. *Shunthi* - 1 part
2. *Sarshapa* - 1 part
3. *Musta* - 1 part
4. *Rasanjana* - 1 part
5. *Triphala* - 1 part

FOLLOW UP: A minimum period of 3 months was planned for follow up study to evaluate the recurrence after treatment.

CRITERIA FOR ASSESSMENT OF THE RESULTS

The effect of treatment was assessed subjectively by clinical observation on the basis of relief in the signs and symptoms of the disease. The scoring pattern adopted for the study was prepared depending upon the severity of the symptoms like *Akasmata Rakta*srav (Bleeding gums), *Sotha*(Inflamation), *Krisnata*(Discoloration), *Daurgandhya*(Halitosis), *Siryamanta* (Gingivalrecession), *Kleda*(Snigdhata), *Paka*(Pus discharge) and *Chalata*(mobility of tooth). The scoring was given from 0 to 4 depending upon the severity. The patients were objectively accessed on the basis of gingival index [14] and bleeding index.

CRITERIA FOR ASSESSMENT OF THE TOTAL THERAPY:

The total effect of the therapy was assessed on the basis of subjective and objective criteria and patients were grouped into the following five categories:

Cured: 100% relief in the signs and symptoms.

Marked improvement:More than 75 % and up to 100% relief of the complaints

Moderate improvement:More than 50 % and upto75 % relief of the complaints

Mild improvement:More than 25 % and up to 50 % relief of the Complaints

Unchanged:More than 0 % and up to 25 % relief of the complaints

A total of 37 patients were registered for the present clinical study, out of them 30 patients completed the treatment 10 patients in each group divided randomly. 7 left the treatment against medical advice.

OBSERVATION AND RESULTS: Patients 60.00% reported in the age group of 20-30years. A majority of the patients were female that was 53.34%. Majority of the patients were Hindus was 90.00%, 66.67%were belonging to middle class. *Raktasrava, Sotha* and *Daurgandha* were present by all the patients in 100%. *Krishnata* was one of the complaints in 96.7% patients. Followed by complain of *Mriduta* by 93.33% and *Shirymanata* in 56.67% cases. Sensitivity was complaints 10%. *Vedana* and *Chalata* found in 0.3.33% each in patients. A maximum of patients were used 46.67% horizontal brushing method and 66.67% of patients were cleaning their teeth once per day.

Evaluation of the effect of treatment in Goup 1: 95% relief was observed in *Raktastrava* which was statistically highly significant at the level of $p<0.001$. 84.21% relief was obtained in *Sotha* which was statistically highly significant at the level of $p<0.001$. 20% relief was obtained in *Shiryamanata* which was statistically non significant at the level of $p>0.1$. 69.23% relief was obtained in *Krishnata* which was statistically highly significant at the level of $p<0.001$. 89.47% relief was obtained in *Daurgandhya*, which was statistically highly significant at the level of <0.001. 70% relief was obtained in *Mriduta*, which was statistically highly significant at the level of $p<0.01$. No relief was obtained in calculus.79.68% relief was obtained in Gingival Index, which was statistically highly significant at the level of $p<0.001$. 73.80% relief was obtained in Bleeding Index, which was statistically highly significant at the level of $p<0.001$.

Tables:1 Group 1 Effect on individual symptoms

Chief Complains	Mean Score B.T.	A.T.	Relief%	S.D.	S.E.	t	P
Raktasrava	2.0	0.1	95.00	0.316	0.100	19.0	<0.001
Sotha	1.9	0.3	84.21	0.516	0.163	9.80	<0.001
Shiryamanata	1.0	0.8	20.0	0.422	0.133	1.50	>0.1
Krishnata	1.3	0.4	69.23	0.316	0.100	9.0	<0.001
Daurgandhya	1.9	0.2	89.47	0.675	0.213	7.98	<0.001
Mriduta	1.0	0.3	70.0	0.483	0.152	4.60	<0.01
Vedana	-	-	-	-	-	-	-
Sensitivity	-	-	-	-	-	-	-
Calculus	0.1	0.1	0.0	0.0	0.0	-	>0.1

Tables:2 Group 1 Effect on Indices:

Chief Complains	Mean Score B.T.	A.T.	Relief%	S.D.	S.E	t	p
Gingival Index	0.94	0.19	79.68	0.401	0.127	5.86	<0.001

Bleeding Index	0.37	0.10	73.80	0.162	0.051	5.41	<0.001

Evaluation of the effect of treatment in Goup 2: 77.78% relief was obtained in *Raktastrava*, which was statistically highly significant at the level of p<0.001. 80.77% relief was obtained in *Sotha*, which was statistically highly significant at the level of p<0.001. 85.71% relief was obtained in *Shiryamanata*, which was statistically highly significant at the level of p<0.01. 86.67% relief was obtained in *Krishnata*, which was statistically highly significant at the level of p<0.001. 100% relief was obtained in *Daurgandhya*, which was statistically highly significant at the level of p<0.001. 83.33% relief was obtained in *Mriduta*, which was statistically highly significant at the level of p<0.001. 100% relief was obtained in sensitivity, which was statistically in significant at the level of p>0.1. 57.14% relief was obtained in calculus, which was statistically significant at the level of p<0.05. 89.89% relief was obtained in Gingival Index, which was statistically highly significant at the level of p<0.001. 89.91% relief was obtained in Bleeding Index, which was statistically highly significant at the level of p<0.001.

Tables:3 Group 2 Effect on individual symptoms

Chief Complains	Mean Score		Relief%	S.D.	S.E.	t	P
	B.T.	A.T.					
Raktasrava	1.8	0.4	77.78	0.516	0.163	8.59	<0.001
Sotha	2.6	0.5	80.77	0.316	0.100	21.0	<0.001
Shiryamanata	0.7	0.1	85-71	0.516	0.163	3.68	<0.01
Krishnata	1.5	0.2	86.67	0.422	0.133	9.02	<0.001
Daurgandhya	2.1	0.0	100.00	0.316	0.100	21.00	<0.001
Mriduta	1.2	0.2	83.33	0.516	0.163	8.59	<0.001
Vedana	-	-	-	-	-	-	-
Sensitivity	0.2	0.0	100.00	0.421	0.133	1.50	>0.1
Calculus	0.7	0.3	57.14	0.516	0.163	2.45	<0.05

Tables:4 Group 2 Effect on Indices:

Chief Complains	Mean Score		Relief%	S.D.	S.E	t	p
	B.T.	A.T.					
Gingival Index	1.57	0.16	89.89	0.452	0.143	9.88	<0.001
Bleeding Index	0.47	0.05	89.91	0.145	0.046	9.10	<0.001

Evaluation of the effect of treatment in Goup 3: 94.74% relief was obtained in *Raktastrava*, which was statistically highly significant at the level of p<0.001. 88.30% relief was obtained in *Sotha*, which was statistically highly significant at the level of p<0.001. 100% relief was obtained in *Shiryamanata*, which was statistically significant at the level of p<0.05. 100% relief was obtained in *Krishnata*, which was statistically highly significant at the level of p<0.001. 100% relief was obtained in *Daurgandhya*, which was statistically highly significant at the level of

p<0.001. 100% relief was obtained in *Mriduta*, which was statistically highly significant at the level of 0.001. 100% relief was obtained in *Vedana*, which was statistically in significant at the level of p>0.1.100% relief was obtained in sensitivity, which was statistically in significant at the level of p>0.1.100% relief was obtained in calculus, which was statistically in significant at the level of p>0.1. 84.57% relief was obtained in Gingival Index, which was statistically highly significant at the level of p<0.001. 90.41% relief was obtained in Bleeding Index, which was statistically highly significant at the level of p<0.001.

Tables:5 Group 3 Effect on individual symptoms

Chief Complains	Mean Score		Relief%	S.D.	S.E.	t	P
	B.T	A.T.					
Raktasrava	1.9	0.1	94.74	0.422	0.133	13.53	<0.001
Sotha	1.9	0.22	88.30	0.483	0.153	11.11	<0.001
Shiryamanata	0.4	0.0	100.00	0.516	0.163	2.45	<0.05
Krishnata	1.2	0.0	100.00	0.632	0.200	6.0	<0.001
Daurgandhya	1.9	0.0	100.00	0.316	0.100	19.0	<0.001
Mriduta	0.1	0.0	100.00	0.632	0.200	6.0	<0.001
Vedana	0.9	0.0	100.00	0.316	0.100	1.0	>0.1
Sensitivity	0.1	0.0	100.00	0.316	0.100	1.0	>0.1
Calculus	0.2	0.0	100.00	0.421	0.133	1.5	>0.1

Tables:6 Group 3 Effect on Indices:

Chief Complains	Mean Score		Relief%	S.D.	S.E	t	p
	B.T.	A.T.					
Gingival Index	0.96	0.15	84.57	0.436	0.138	5.87	<0.001
Bleeding Index	0.34	0.03	90.41	0.184	0.058	5.36	<0.001

DISCUSSION: *Shitada*- Gingivitis affects on uncountable large section of the population and involves adults gingival due to bad oral hygiene with bad habits. Neglecting oral hygiene and allowing deposition of food particles which results in to gingivitis. This challenge of the time was accepted by the Ayurvedic scholars as they believed that the nature provide both the diseases and the drug together and gave a concept of protection, restoration and regeneration of gingival health. Chiefly due to the bad oral hygiene and its chief symptom is bleeding gums, halitosis, like wise in Ayurveda also, *Shitada* is mentioned. Hence a treatment consisting of *Nasya* of *Triphaladi Ghrita*, *Bhadramustadi Churna Pratisarana* and *Nagaradi Kwatha*, *Gandush*a having *Sothahara, Rakta stambhaka, Mukha Shuddhikara* properties. Vitiated *Kapha* and *Rakta* play major role to devolope the samprapti of *Shitada* as administration of the formulation in the form of *Nasya*, *Kapha* and *Rakta* may pacify. *Pratisaran* of *Bhadramustadichurna* and *Gandush* of *NagaradiKwatha* are beneficial for *sodhan* of gingiva can remove the food debris and

plaque. Retention of the medicine in the oral cavity loosens the calculus and gives a mechanical massage to the gingiva. Absorption of the drug reduces the swelling and prevents the infection with its best therapeutic action. The drugs *Triphaladi Ghrita*, *Bhadramustadi Churna* and *Nagaradi Kwatha* may *Shothahara*, *Rakta*stambhaka, *Mukhasuddhikara* properties. Total effect of therapies has been shown in graph 1.
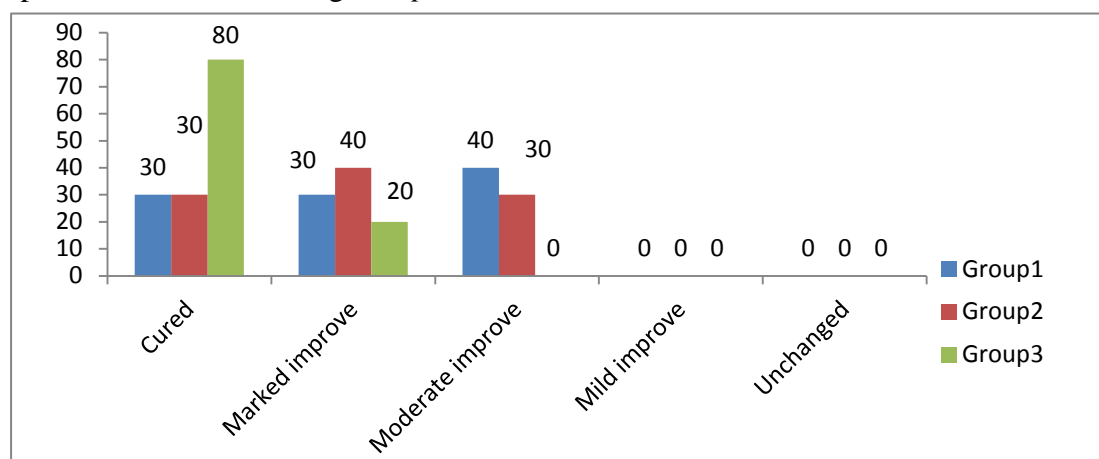
CONCLUSION:

- There is need to increase awareness about oral hygiene in the society. Oral care methods mentioned in ancient texts should be followed in a healthy condition as well as in the disease condition.

- It is concluded from this study that maximum relief was obtained in chief complaints like *Raktasrava*, *Sotha*, *Shiryamanta*, *Krishnata*, *Daurgandhyata*, *Mriduta*, *Vedana*, sensitivity and calculus in combined group whereas in *Nasya* group, maximum relief was obtained in *Raktasrava* and in *Pratisarana Gandusha* group maximum relief was found in sensitivity.

- In nut shell, *Shitada* can be managing with local treatment-*Pratisaran* and *Gandusha* as well as *Nasya*. It is useful in removing and controlling plaque and calculus. Thus it is a better treatment for *Shitada*.

REFERENCES:

1. Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Nidanasthan 16/3, Varanasi, Chaukhambha Sanskrit Samusthan. Eleventh Ed.1997, p.294

2. Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Nidanasthan 16/14, Varanasi, Chaukhambha Sanskrit Samusthan. Eleventh Ed.1997, p.295

3. Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Nidanasthan 16/15, Varanasi, Chaukhambha Sanskrit Samusthan. Eleventh Ed.1997, p.295

4. Athaval V.B., Dentistry in Ayurveda 1[st]edition, Delhi, Chaukhambha Sanskrit Prakashan 1999, p.25

5. Soben Peter, Essentials of Preventive and Community Dentistry, 1[st]ed. New Delhi,ARYA(MEDI) Publishing House 1999 ,p.335

6. AYU.JOU.Vol.-34,Year-2013,Issue-1,page 63-69

7. Shefer WG, Hine MK, Levy BM. Textbook of Oral Pathology. 4th ed. Chap 15, New Delhi;Published by Harcourt(India) Pvt. Ltd;1993 p.787

8.Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Chikitsasthan22/11 Varanasi, Chaukhambha Sanskrit Samusthan. 11th ed. 1997, p.98

9.Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Chikitsasthan40/69 Varanasi, Chaukhambha Sanskrit Samusthan. 11th ed. 1997, p.185

10. Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Sutrasthan24/11 Varanasi, Chaukhambha Sanskrit Samusthan. 11th ed. 1997, p.102

11. Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Chikitsasthan22/10-13, 40/56 Varanasi, Chaukhambha Sanskrit Samusthan. 11th ed. 1997, p.98,p.185

12.Sushrut, Sushrut Samhita, Hindi commentary by Ambikadat Shastri, Part 1, Chikitsasthan24/8,9 Varanasi, Chaukhambha Sanskrit Samusthan. 11th ed. 1997, p.105

13. Shefer WG, Hine MK, Levy BM. Textbook of Oral Pathology. 4th ed. Chap 9, New Delhi;Published by Harcourt(India) Pvt. Ltd reprint 2001 p.511

14. Soben Peter, Essentials of Preventive and Community Dentistry, 1st ed. Chap 14. New Delhi,ARYA(MEDI) Publishing House 1999 ,p.478.

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Source of support: Nil
Conflict of interest: None
Declared