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 37 patients 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: TripaladigritaNasya, 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 Raktu [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 Blood-letting, Pratisaran, Gandusha 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 Raktamokshana to relieve Rakta Dusti. Local treatment includes Pratisaran and Gandusha 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;\textsuperscript{[10]} the drugs like Triphala should be processed with Ghrita for Nasya.\textsuperscript{[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.\textsuperscript{[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.\textsuperscript{[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.

\textbf{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.

\textbf{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.

\textbf{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

\textbf{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.

\textbf{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.

\textbf{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 Pratisarana along with Nagaradi Kwatha for Gandusha
Dose: Bhadramustadi Churna - 2 grams with honey for Pratisarana twice a day
Nagaradi Kwatha - 20 ml Kwatha for Gandusha twice a day after Pratisarana.
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 Pratisarana. It was meant for oral hygiene supplementation therapy in the management of Sitada.

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 (Inflammation), Krisnata (Discoloration), Daurgandhya (Halitosis), Siryamanta (Gingival recession), Kleda (Snigdhata), Pakα (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 20-30 years. 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. Raktastrava, 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 Shiryamanata in 56.67% cases. Sensitivity was complaints 10%. Vedana and Chalata found in 0.33% 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 p<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

<table>
<thead>
<tr>
<th>Chief Complaints</th>
<th>Mean Score</th>
<th>Relief%</th>
<th>S.D.</th>
<th>S.E.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B.T.</td>
<td>A.T.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raktastrava</td>
<td>2.0</td>
<td>0.1</td>
<td>95.00</td>
<td>0.316</td>
<td>0.100</td>
<td>19.0</td>
</tr>
<tr>
<td>Sotha</td>
<td>1.9</td>
<td>0.3</td>
<td>84.21</td>
<td>0.516</td>
<td>0.163</td>
<td>9.80</td>
</tr>
<tr>
<td>Shiryamanata</td>
<td>1.0</td>
<td>0.8</td>
<td>20.0</td>
<td>0.422</td>
<td>0.133</td>
<td>1.50</td>
</tr>
<tr>
<td>Krishnata</td>
<td>1.3</td>
<td>0.4</td>
<td>69.23</td>
<td>0.316</td>
<td>0.100</td>
<td>9.0</td>
</tr>
<tr>
<td>Daurgandhya</td>
<td>1.9</td>
<td>0.2</td>
<td>89.47</td>
<td>0.675</td>
<td>0.213</td>
<td>7.98</td>
</tr>
<tr>
<td>Mriduta</td>
<td>1.0</td>
<td>0.3</td>
<td>70.0</td>
<td>0.483</td>
<td>0.152</td>
<td>4.60</td>
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<tr>
<td>Vedana</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Calculus</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>5.86</td>
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### Tables: 2 Group 1 Effect on Indices:

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<th>Chief Complaints</th>
<th>Mean Score</th>
<th>Relief%</th>
<th>S.D.</th>
<th>S.E.</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B.T.</td>
<td>A.T.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gingival Index</td>
<td>0.94</td>
<td>0.19</td>
<td>79.68</td>
<td>0.401</td>
<td>0.127</td>
<td>5.86</td>
</tr>
</tbody>
</table>
Evaluation of the effect of treatment in Group 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 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.

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

Evaluation of the effect of treatment in Group 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.
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.

Tables: 5 Group 3 Effect on individual symptoms

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

Tables: 6 Group 3 Effect on Indices:

<table>
<thead>
<tr>
<th>Chief Complains</th>
<th>Mean Score</th>
<th>Relief%</th>
<th>S.D.</th>
<th>S.E.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gingival Index</td>
<td>B.T 0.96</td>
<td>A.T 0.15</td>
<td>84.57</td>
<td>0.436</td>
<td>0.138</td>
<td>5.87</td>
</tr>
<tr>
<td>Bleeding Index</td>
<td>B.T 0.34</td>
<td>A.T 0.03</td>
<td>90.41</td>
<td>0.184</td>
<td>0.058</td>
<td>5.36</td>
</tr>
</tbody>
</table>

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, Gandusha having Sothahara, Rakta stambhaka, Mukha Shuddhikara properties. Vitiated Kapha and Rakta play major role to deveolope 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, Raktastambhaka, 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, Dauryandhyata, 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.

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