

Research Article

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# MANAGEMENT OF SHEETADA WITH PRACCHANNA KARMA FOLLOWED BY MUSTADI CHOORNA PRATISARANA, MUSTADI KWATHA KAVALA AND MADHUYASHTI TAILA NASYA

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#### **ABSTRACT**

**Introduction:** Mukha is considered as one of the most important part of urdhwajatru, because it works as the reflection of the body health by acting as the gateway of alimentary canal. Fast food culture, unhealthy habits like smoking and improper oral hygiene have caused irreversible damage to human health. Gingivitis is one such disease which the human generation is suffering due the above factors and in our classics it can be correlated to sheetada which is a kapha raktaja vyaadhi. Need for the study: The prevalence of gingivitis is 80% - 90% in our country. Currently there are no reliable predictors as to which individual is susceptible to this disease progression. If gingivitis is neglected and left untreated it may progress to another stage of disease known as periodontitis which involves the deeper structures of the periodontium. Hence prevention and control of gingivitis at the earliest is essential in every case. Objectives: The objectives of the study is to evaluate the efficacy of pracchana karma followed by mustadi choorna pratisarana (musta, arjuna, twak, triphala, priyangu, rasanjana, shunti), mustadi kavala and madhuyashti taila nasya in the management of sheetada. Study design: 20 patients were treated with pracchanna karma on first day followed by mustadi choorna pratisarana, mustadi kwatha kavala, and madhuyashti taila pratimarsha nasya for 30 days. Observation and conclusion: Visravana by prachhanna vidhi counteract the samprapti of Sheetada which is produced by dushtarakta. It drains out impure blood from unhealthy gingivae. Mustadi choorna consists of potent antimicrobial drugs against gram +ve & gram -ve organisms. It also consists drugs having anti inflammatory and anti ulcerogenic property. Gargling creates pressure in the oral cavity and brings out toxins and other debris from the interdental, gingival, and gingival margins, thereby cleansing the oral cavity. The lukewarm liquid used for kavala helps in dilation of the blood vessels in the oral mucosa (gingiva) and thus helps in absorption of the active ingredients present in medicine, which in turn gives strength to the roots of the teeth. Yashtimadhu is said to be pitta vata rakta hara, Thereby it pacifies the rakta dosha which the prime vitiating factor in sheetada. Hence when used as nasya in the form of taila in Sheetada it helps in dosha shamana. RE-**SULTS:** 80% of the patients showed good response, 20% moderate.

**KEYWORDS:** Sheetada-(Gingivitis, Rakta)~blood, shothahara-~ Anti inflammatory, Shodhaka-~ cleasing, Ropaka-~ healing, Choorna-~ Powder, Kavala-~ Gargling, Guna-~ Qualities, Veerya-~ Potenta Raktamokshana-~ Bloodletting, Pratisarana-~ gentle rubbing/massage, Vedanasthapana-~ analgesi Mukha-~ Oral cavity, Dantamoola~ Gingiva

#### INTRODUCTION

There is a very famous health tip which says, "Eat your liquids and drink your solids". For this one has to masticate the food thoroughly which is possible only with healthy oral cavity. Mukha is considered as one of the most important part of urdhwajatru, because it works as the reflection of the body health by acting as the gateway of alimentary canal. Fast food culture, unhealthy habits like smoking and improper oral hygiene have caused irreversible damage to human health. One of the main diseases of which human generation is suffering due to above factors is sheetada mentioned in Ayurvedic classics which can be correlated to Gingivitis as per Modern dentistry.

Earliest reference about Sheetada is available in Sushruta samhita (2350B.C.). He has mentioned it under Danta moolagata rogas in mukharoga prakarana.. There will be vitiation of kapha and rakta resulting in soft, bleeding, moist gingiva associated with foul smell and blackish discolouration.

Sheetada can be correlated to Gingivitis. It is most commonly encountered oral disease in day to day practice. It is often caused by plaque. The cause of plaque induced gingival disease is the accumulation of bacterial plaque at or near the gingival margin. The bacterial component of plaque produces a variety of enzymes and toxins which diffuse through the junctional epithelium and initiate inflammatory changes in gingival connective tissue. If there are no plaque control measures Gingivitis may progress to involve deeper structures and cause destruction of the periodontal fibres and resorption of alveolar bone. Inadequate oral hygiene invariably leads to gingivitis

which is an inflammatory response of the gingiva without the destruction of supporting tissues. Inflamed gingival is clinically recognized by the signs of inflammation such as redness of the gingiva, swelling, bleeding, exudation, and occasional pain. The Prevelance rate of gingivitis in India is 80 – 90%. Currently there are no reliable predictors of which individuals are susceptible to this disease progression, so prevention and control of gingivitis is essential in every

The treatment described in our classics for Visravana. Sheetada are Pratisarana. Pralepa, Kavala and Nasya which are aimed at breaking the pathogenesis of the disease and improving the health of the gingiva. A reference in Ashtanga Hridaya describes the line of treatment in Sheetada as visravana followed by Pratisarana, Kavala and Nasya. These are simple procedures, free from side effects and cost effective.

Mustadi choorna mentioned in Ashtanga Hridava in the management of Sheetada, consists of the following drurgs -Musta, Arjuna, Twak, Triphala, Priyangu, Rasanjana and Shunti. The drugs in this preparation possess kapha raktahara, rakta shodhaka, rakta stambhaka, Shothahara, ropaka and vedana vrana shodhaka, stapana properties. Madhuroushadha sadhita taila nasva has been mentioned in our classics in the treatment of *sheetada*. Hence Yashtimadhu taila has been selected for nasya.

Management of gingivitis according to modern dentistry is by mechanical removal of Plaque by scaling. Many a times there will be persistent gingival inflammation even after repeated scaling. Last treatment of choice is flap surgery, which is quite expensive and use mouth wash is known to have side effects if used continuously.

#### **OBJECTIVES** OF THE STUDY

- To study the disease Sheetada or gingivitis from both ayurvedic and modern perspective.
- To evaluate the efficacy of Pracchana Karma (visravana) followed by Mustadi choorna pratisarana, Mustadi kvatha kavala and Madhuyashti sadhita taila nasya in the management of Sheetada.

#### **MATERIALS AND METHODS**

Source of Data: The cases of Sheetada were selected from OPD and IPD from Department of Shalakya tantra, SJIIM hospital, Bangalore.

Method of Collection of Data: The cases of Gingivitis which can be correlated to Sheetada with classical features namely bright red or bluish red gingiva, inflammation of the gingiva, soft consistency of the gingiva, halitosis, spontaneous bleeding or bleeding on provocation and deposition of plaques were selected for the study.

### Preparation of Mustadi Choorna, Mustadi Kwatha and Madhuyashti Taila Mustadi Choorna ingridients

*Musta*- tubers *Haritaki*- Fruit *Arjuna*- Bark *Vibhitaki* – Fruit *Amalaki*- Fruit Rasanjana- Extract Shunti-Rhizome

#### Diagram no. 1 showing Gingivitis



Twak - Bark

Method of preparation of powder: The above mentioned drugs were cleaned and dried. 100gms of each were taken and powdered separately khalva yantra, sieved through clean kora cloth and thoroughly mixed until

they formed a homogenous mixture. It was then stored in a clean and dry porcelain container with air tight lid and was used along with madhu for pratisarana on patients whenever required.

Mustadi Kwatha: The above mentioned drugs were taken in equal quantity and powdered in a khalva yantra. One part of drug was boiled in 16 parts of water and reduced to 1/8 th. Then it was filtered using a kora cloth. This decoction was given for gargling when it was Luke warm.

Madhuvashti Taila: The patient was advised to instill 2 drops of this taila each nostrils daily after brushing for a period of 30 days.

#### **INCLUSION CRITERIA:**

- Features of Gingivitis namely bright red or bluish red gingiva
- Soft consistency of the gingiva, halitosis, spontaneous bleeding or bleeding on provocation and deposition of plaque, inflammation of gingiva.

#### **EXCLUSION CRITERIA:**

- Other forms of Gingivitis having hyperplasia or neoplasia, haemorrhagic disorders
- Endocrine disorders and immune deficiency disorders.

#### • Any other systemic diseases

## **Criteria For The Assessment Of Parameters:**

**Subjective Parameters:** Halitosis index<sup>1</sup> (loe, 1967)

**Objective Parameters:** Gingival Index, Plaque Index

#### **Assessment of results:**

Good response- Above 75% relief in over all features.

Moderate response- Above 51% and below 75% relief in over all features.

Mild response -Below 50% relief in over all features.

Poor reponse- No relief in over all features.

#### **DESIGN OF THE STUDY:**

20 cases of *Sheetada* were selected and the same were randomly selected and treated. These 20 patients were treated with *Pracchana*, followed by *Mustadi choorna Pratisarana*, *Mustadi kavala* and *madhuyasti taila Nasya* for a period of 30 days.

#### **Procedure:**

Patient was advised to clean the mouth and hands before the procedure. Initially *prac-chana* with the help of a dental probe was done. Later, One *Kola* (6 gms) of *Mustadi choorna* mixed with honey was advised to be rubbed over the gingiva and tooth using finger. After five minutes the patient was

advised to gargle his mouth with *kvatha* prepared out of *Mustadi choorna*. This procedure was advised to be carried out once daily in the morning after routine brushing for a period of 30 days. Later on 2 drops of *madhuyashti taila* was advised to be instilled into each of the nostrils. Scaling was done on patients having calculus before starting these procedures. These procedures were done in the OPD on the first two days. Later the patients were advised to carry out the procedures at home.

All the patients were advised to follow the proper method of brushing and maintain oral hygiene.

Observations were made before, on 10<sup>th</sup> day, 20<sup>th</sup> day and 30<sup>th</sup> day of the treatment. All the observations were recorded in a specially designed proforma prepared for the study.

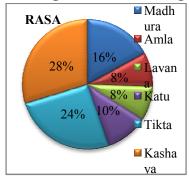
#### Follow up period:

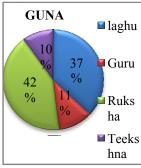
A follow up period of 60 days was fixed to observe the possible recurrences.

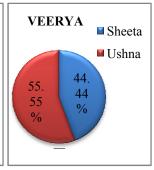
#### **DISCUSSION ON PROCEDURES**

In the present study, *Pracchana* followed by *Mustadi choorna pratisarana*, *Mustadi kwatha kavala* and *Nasya* with *Madhuyashti taila* were adopted. According to the Ayurvedic principles of disease management any disease has to be treated by destructing the **aetio-pathogenesis**.

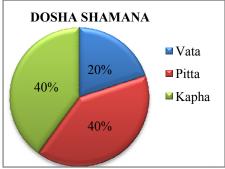
Diagram no. 2 showing Pharmacodynamic properties of Mustadi chooorna











Visravana by prachhanna vidhi coun-

teract the pathogenesis of *Sheetada* which is produced by dushtarakta. It drains out impure blood from unhealthy gingivae. Once, the major vitiated blood along with toxin products is gone, it controls the progression of the disease process and regress the severity of the disease by alleviating pitta dosha. The remaining doshas, and sthayi rakta dhatu is purified by the local procedure, kavala and Pratisarana. Mustadi choorna consists of potent antimicrobial drugs against gram +ve & gram -ve organisms. It also consists drugs having anti inflammatory and anti ulcerogenic property.<sup>7</sup>

#### Probable Mode of Action of Visravana

Sushruta, the father of surgery indicated Raktamokshana / Visravana in Dantamulagata rogas<sup>6</sup>. Between two types of Visravana, Prachhana vidhi was adopted in the present study. This is very effective blood purification therapy, in which carefully controlled removal of small quantities of blood is conducted to neutralize the accumulated pittadosha and many dushtaraktajanya diseases. Raktamokshana removes the utpadaka karana of sheetada to a great extent. It drains the fluid rich in pathogenic factors (vitiated doshas) from the dantamula and helps in easy flow of blood by removing the obstruction in the blocked channels. Hence, it stops further aggression of the disease by removing pathogenic factors in faster manner. Once *Utpadaka karana* i.e. vitiated blood is drained; it controls the influence of Vyanjaka karana also, by enhancing the action of local procedure i.e. kavala and Pratisarana. Based on the above reference, we can assume that Visravana enhances the constant stream of neutrophils emigration from the gingival vessels; these are the primary and first line of defense around the teeth. Further, re-establishment of epithelial barrier takes place. Raktamokshana helps in Vrana shodhana and Ropana.

**Probable Mode of Action of** *Pratisarana***:** Vrana Sodhana (Debridement) and Vrana Ropana( healing) Action: By Pratisarana mechanical pressure is exerted on gingiva in the direction of sulcus which removes food debris, plaque, necrotic tissue remnants, inflamed granulation tissue and bacterial colonies too. Thus it removes the main causative factors of the disease.

**Pseudo-inflammatory** reaction: Pratisarana will have constant irritation to the gingival tissues there by it produces pseudoinflammatory reaction on tissues and inturn it causes altered permeability of the blood capillaries. Due to this altered permeability of the vessels there will be a favourable atmosphere to the active principles of the drugs to gain access in to the local vasculature, thus producing the desirable effect.

Benefits of *Pratisarana*: Rate of Gingival Crevicular Fluid production is increased by gingival massage which is done in Pratisarana. This crevicular fluid inhibits bacterial diffusion into the tissues as it has phagocytic leukocytes, specific anti-bodies & enzymes of several specificities. Pratisarana also promotes salivation which

brings about faster cure. There is an added benefit of honey which possess cleansing, debriding, anti-inflammatory and antibacterial properties. It also acts as a very good healing agent.

# Probable Mode of Action of *Mustadi kwa-tha Kavala* in The management of Gingivitis:

Gargling creates pressure in the oral cavity and brings out toxins and other debris from the interdental, gingival, and gingival margins, thereby cleansing the oral cavity. The pressure exerted by gargling also helps in the penetration of the drug into the oral mucosa (gingiva). The lukewarm liquid or oil used for kavala helps in dilation of the blood vessels in the oral mucosa (gingiva) and thus helps in absorption of the active ingredients present in medicine, which in turn gives strength to the roots of the teeth. The drugs used in this preparation Possess anti inflammatory, anti infective property and anti oxidant property which in turn helps in faster healing. Gargling with this decoction helps in the reduction of specific bacteria in the oral cavity.

### Probable Mode of Action of Madhuraoushadha Taila (Madhuyashti) as Pratimarsha Nasya in the Management of Gingivitis:

- 1. Yastimadhu is madhura rasatmaka, guru, snigdha guna, madura vipaka, sheeta virya, pitta kapha samaka..
- 2. Chemical analysis of Yasti has revealed that it has 2.93% of calcium oxide which

helps in regeneration of periodontal ligament and osteoblast of alveolar bone to some extent. *Yashtimadhu* is said to be *pitta vata rakta hara*.<sup>4</sup> Thereby it pacifies the *rakta dosha* which the prime vitiating factor in *sheetada*. Hence when used as *nasya* in the form of taila in *Sheetada* it helps in *dosha shamana*. The benefit of *Pratimarsha nasya* done after brushing is that it will cause firmness of the teeth and pleasant odour to the mouth. And moreover it can be done in any age group people and can be administered even at unsuitable, rainy season and on bad days (having no sunlight). <sup>5</sup>

#### Mode of action of pratimarsha nasya:

The medicine that is put into nostrils, moves up the channels upto the *srngataka* (a vital spot at the base of the brain.), spreads to the whole of the interior of the head, the channels of the eyes, ears, throat and their veins and cures the diseases affecting the parts above the shoulders quickly, removing out the accumulation of *doshas* localized in the head.<sup>5</sup>

#### **DISCUSSION ON RESULT:**

To evaluate the effect of treatment on individual parameters paired t-test was applied. Overall assessment of the results showed that the patients who were treated with *Pracchanan, Mustadi choorna Pratisarana, Mustadi kavala and Madhuyashti taila nasya* karma have showed **80% Good response**, **20% Moderate response** and **0%** Mild response.

## Table showing the effect of treatment on individual parameters Table No. 1

Parameter	MEAN	Mean	%of	Df	SD	SE	T-	P-	Remarks
		differ-	relief				Value	Value	

	BT	AT	ence							
Halitosis	1.85	0.25	1.6	86.48	19	0.882	0.1974	8.107	p<0.001	HS
Gingival Index	2.35	0.25	2.1	89.36	19	0.587	0.1313	16.38	P<0.001	HS
Plaque Index	1.7	0.2	1.5	88.23	19	0.688	0.1539	9.747	P<0.001	HS

BT- Before treatment, AT- After treatment, SD- Standard deviation, SE- Standard error, Df- Degree of freedom

#### PHOTOGRAPH OF THE GINGIVITIS PATIENT BEFORE AND AFTER TREATMENT

Diagram no. 3



**BEFORE TREATMENT** 



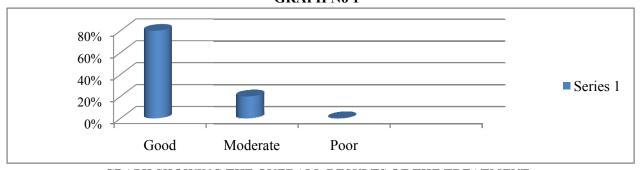
AFTER TREATMENT

#### **CONCLUSION**

The study was aimed to evaluate the efficacy of *Pracchana* followed by two main *sthanika chikitsa, "kavala"* and "*Pratisarana*" along with *pratimarsha nasya*. The following conclusions were drawn after considering the clinical aspects and theoretical facts. *Visravana* is the good measure to decrease the severity of the disease immedi-

ately and to control the pathology. *Kavala* and *Pratisarana* have a remarkable effect in the management of *Sheetada*. Drugs in *Mustadi choorna* have significant antimicrobial activity, plaque inhibition effect, anti-inflammatory, haemostatic, antioxidant, *vrana shodhaka* and *vra.na prasadhana* action.

#### **GRAPH No 1**



GRAPH SHOWING THE OVERALL RESULTS OF THE TREATMENT

#### **Recurrences:**

During the post treatment period of 60 days recurrences were not found in any of the cases.

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