

## **Research Article**

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# Clinical evaluation of Ashvattha (*Ficus religiosa* Linn.) in Mukhapaka with special reference to aphthous ulcer

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#### **ABSTRACT**

The changing lifestyle has ended up producing innumerable ailments in the mankind. Mukhapaka is one such disease which causes a lot of discomfort to the sufferer and seen in all classes of the society. It is also called Sarvasara Mukharoga. The aggravated doshas move through the oral cavity and produces the paka. Aphthous ulcer or ulcerative stomatitis can be equated to Mukha paka with most of the symptoms being similar. Currently, the treatment for the Aphthous ulcer being very limited, the present clinical study was designed to evaluate the efficacy of Ashvattha twak Choorna in the same. 30 patients were registered for the trial and were randomly divided into 2 groups. Group A received the treatment with Ashvattha twak choorna and honey and Group B received the treatment with Ashvattha twak choorna and water. The results were statistically significant in both the trial. Ashvattha twak choorna and honey (Group A) was found to be more efficacious in hastening the healing of Vadanasya antarvrana compared to Ashvattha twak Choorna and water (Group B).

Keywords: Mukhapaka, Aphthous ulcer, Ashvattha twak Choorna, Honey.

#### INTRODUCTION

 $\mathbf{M}$ ukhapaka is a roga caused by the intake of improper ahara and vihara  $^{[1]}$ . It's a common disease seen in the society. Mukhapaka is also called as Sarvasara Mukharoga [2]. Mukhapaka is mentioned under the 40 nanatmaja pitta rogas according to Charaka [3]. Dalhana on his commentary on Sushruta samhitha mentiones Mukhapaka as basically and purely a pittaja vikara but Sushruta acharya has classified Sarvasara mukharoga as vataja, pittaja, kaphaja and raktaja [4], the aggrevated vatadi doshas afflict the mukha to produce paka and vrana [3]. The common symptoms includes the sphutana or vadanasya antarvrana, toda, daha [4]. This condition can be co-related to Aphthous ulcer or ulcerative stomatitis. It may occur in any part of the mouth [5]. They may be single or multiple and usually recurrent. The cause remains uncertain. The symptoms are small painful round ulcerations with yellow- gray fibrinoid centres surrounded by red halos. Treatment for aphthous ulcer remains non specific [6]. Topical corticosteroids like 0.1% triamcinolone acetonide etc, mouth washes containing the enzymes to provide symptomatic relief. One week tapering course of prednisolone (40-60mg/d) has also been used successfully [5,6]. Various treatment modalities like Kavala, Gandoosha dharana, Kayavirechana, Shirovirechana. Pratisarana [7] have been explained in Ayurvedic classics for Mukhapaka. Pratisarana of Ashvattha twak Choorna in Mukhapaka [8] is mentioned in most of the Ayurveda texts. Keeping in mind the contra- indications and possible adverse reactions of the steroids, an attempt is made to study a safe, cost effective and easily available drug in the present study.

## **MATERIALS AND METHODS**

30 patients were selected from the OPD of KVG Ayurveda Medical College, Sullia, Dakshina Kannada, Karnataka. Clearance from the ethical committee was obtained. Consent of all patients included in the study was taken. Comparative study was conducted.

#### Selection criteria:

#### Inclusion criteria

- Patients showing signs and symptoms of Mukhapaka( Aphthous ulcer).
- Patients of both the sexes.
- Patients of the age group between 16-40 yrs.

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#### **Exclusion criteria**

- Patients below the age of 16yrs and above 40 yrs.
- Known cases of carcinoma, other inflammatory conditions of the oral cavity like Gingivitis, Pharyngitis, Tonsilitis, Adenoids and wound due to trauma.

#### Clinical parameters in sample selection:

Subjective - toda

gurutva daha

Objective - sphota/vrana

1) Colour 2) Number 3) Site

#### **Grouping:**

Keeping in mind the above criterias, 30 patients were randomly divided into group A and group B with 15 patients each.

#### Treatment plan:

## Poorva karma

The dried stem bark was collected, pounded and pulverised, stored in air tight container, madhu required for the study was collected from the tribals of Waynad dist. Kerala.

#### Pradhana karma

Group A were asked to apply the paste prepared out of stem bark of ashvattha and honey.

Group B were asked to apply the paste prepared out of stem bark of ashvattha.

Mode of administration: pralepana

Dosage: quantity sufficient

**Duration**: thrice daily, after food for 7 days.

Patient was observed on the 4<sup>th</sup> day and on the 8<sup>th</sup> day.

## Assesment criteria:

Assessment of the results obtained was done on the basis of improvement in subjective and objective criterias which were assigned different grades. Effect of the therapy was assessed by statistical analysis of scores before and at the end of the trail.

## Statistical analysis

Paired 't' test has been used for analyzing the data obtained during the study between the groups. A 'P' value >0.05 is considered statistically non significant, <0.05 is considered as statistically significant, 'P' value <0.001, <0.01 is considered as highly significant.

## **OBSERVATION AND RESULTS**

The clinical study carried out in the present series of patients have revealed that maximum incidences were found in between 20-24 years of age, female sex, hindu religion, mixed dietary habit. Majority of patients were having madhyama koshta, sama agni, prakruta mala pravruti and niyamita artava srava. Maximum number of patients was

of pitta kaphaja prakruti. Maximum number of patients had vrana/sphutana associated with pain and discolouration.

After the completion of the trial there was a marked improvement in the feeling of well being in both the groups. But high incidence of remission was seen in group A and moderate remission was seen in group B.

## **Clinical improvement:**

#### **Effect on Toda**

#### Group A

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before	After				
Treatment	Treatment	0.86	100	9.539	<0.001
0.86	0.0				

## Group B

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before Treatment	After Treatment	0.80	93.02	7.483	<0.001
0.86	0.06				

#### Effect on Daha

#### Group A

Mean		Before Treatment- After Treatment	%	T-value	P-value
Before	After				
Treatment	Treatment	0.53	100	4	<0.01
0.53	0.0				

#### Group B

Mean		Before Treatment- After Treatment	%	T-value	P-value
Before	After				
Treatment	Treatment	0.66	100	5.292	<0.001
0.66	0.0				

# **Effect on Gurutva**

#### Group A

Mean		Before Treatment- After Treatment	%	T-value	P-value
Before Treatment	After Treatment	0.13	100	1.468	>0.05
0.13	0.0				

#### Group B

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before	After				
Treatment	Treatment	0.33	100	2.646	<0.05
0.33	0.0				

# **Objective parameters**

## Effect on discolouration

#### Group A

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before	After				
Treatment	Treatment	0.74	74	6.205	<0.001
1.0	0.0				

#### Group B

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before Treatment	After Treatment	0.4	40	3.055	<0.01
1.0	0.6				

# Effect on number of ulcers

## Group A

Before Treatment \*4th day

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before	After				
Treatment	Treatment	1.4	83.98	2.144	<0.01
1.66	0.267				

# Before Treatment \*7th day

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before	After				
Treatment	Treatment	1.67	100	5.229	<0.001
1.67	0.0				

#### Group B

Before Treatment \*4th day

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before	After				
Treatment	Treatment	0.6	40.89	2.144	<0.01
14.67	0.867				

## Before Treatment \*7th day

Mean		Before Treatment- After Treatment	%	T-value	<i>P</i> -value
Before	After				
Treatment	Treatment	1.4	95.23	6.031	<0.001
1.47	0.07				

#### **Overall Results**

#### Group A

S. No	Remission	Patients	%
1.	High	10	66.66
2.	Moderate	5	33.33
3.	Mild	0	0

## Group B

S. No	Remission	Patients	%
1.	High	6	40
2.	Moderate	9	60
3.	Mild	0	0

#### **DISCUSSION**

Observations showed there was 100% relief in toda in patients of group A whereas 93.02% were relieved in group B within the 4 days of the treatment. The drug is highly significant in treating toda. 100% patients were relieved of daha in both group A and group B within the 4days of the treatment. The drug is highly significant in treating daha. There was 74% relief in discoloration in group A and 40% in Group B within the 4 days of treatment. The drug is significant in treating gurutva in Group B and non significant in treating Group A. There was 83.98% reduction in the number of ulcers in group A within the 4 days; the drug is highly significant in treating the ulcers and 100% remission at the end of 7days, which is also highly significant in healing the ulcers. Whereas only 40.89% reduction was seen in group B, within the 4 days and 95.32% remission at the end of 7<sup>th</sup> day which shows the drug was significantly efficacious in healing the ulcer. The overall results showed in Group A 66% of the samples had high remission rate and 33% had moderate remission rate whereas in Group B 40% of the samples had high remission rate and 60% had moderate remission rate.

#### Probable mode of action:

The aggrevated doshas especially pitta, moves through the mukha to cause the Mukhapaka or Sarvasara mukharoga. This drug by the virtue of its kashaya, madhura rasa, guru, ruksha guna and sheeta veerya acts

as pitta shamaka and relieves the daha and toda. The kashaya rasa possesses the ropana property which makes it efficacious in treating sphutana or vadanasya antarvrana. By the virtue of the shoshana property of Kashaya rasa and ruksha guna the gurutva is reduced. The preliminary pharmacognostical and analytical screening confirms the presence of tannins and glycosides in the stem bark of Ashvattha. Tannins have the property to coagulate proteins and mucosal tissue by creating an insulating and protective layers that soothes irritation and pain in the skin. It also possesses ability to increase the collagen content which promotes the wound healing.

#### CONCLUSION

Therefore, from the above observations it can be concluded that trial drug Ashvattha is efficacious in treating Mukhapaka, but the combination of Ashvattha and honey has shown promising results on both subjective and objective parameters.

#### **CONFLICTS OF INTEREST**

No conflicts of interest.

#### SOURCE OF FUNDING

Nil.

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