

## CLINICAL STUDY ON POST OPERATIVE PAIN MANAGEMENT WITH VEDANA STHAPAKA KASHAYA IN ARSHAS

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### ABSTRACT

**Background:** Post-operative pain is the common outcome of the Surgery and the ability to alleviate this pain is one of the most important goals for surgery. In case of *ksharasutra* ligation, the patient experiences agonizing pain in the wound which may persist for long time. To manage this we have to rely on the modern analgesics which are having lots of side effects. **Objective:** To evaluate the efficacy of *Vedana Sthapaka Kashaya* in post operative pain management of patients undergone *ksharasutra* ligation for *Arshas*. **Methodology:** In this study, minimum 40 patients were selected and placed in two groups by simple random sampling method i.e. 20 in trial and 20 in standard groups. In trial group “*Vedana sthapaka kashaya* 35 ml TID” was given where as in the standard group “Tab. Diclofenac sodium 50 mg BD” was given. The therapeutic effects were analyzed by using the subjective parameter. The duration of treatment was 5 days and clinical assessment was done every day.

**Observation:** in observation along with others the main reason found was that maximum 82.5% of patients were having constipated bowel. More straining for expelling constipated stools will leads to dilation of venous plexus.

**Result:** At the end of clinical study all 20 patients in group A and 20 patients in group B showed maximum improvement. **Conclusion:** The study showed both Diclofenac sodium and *Vedana sthapaka kashaya* were proved to be effective in the management of post operative pain in the patients who undergone *ksharasutra* ligation in *arshas* but comparatively, Tab. Diclofenac sodium was found superior than *Vedana sthapaka kashaya*.

**Keywords:** *Vedana*, Postoperative pain, *Ksharasutra* ligation, *Vedana sthapaka kashaya*, Diclofenac sodium.

### INTRODUCTION

Surgery gives fastest relief from various diseases but the common outcome is the post operative pain which comes under acute pain. Pain is said to be an important indicator of abnormal process going inside the

body which urges the person to take required treatment<sup>1</sup>. Early treatment of acute post operative pain may prevent the development of chronic post operative pain.

In *Ayurveda*, pain can be co-related with *Vedana*. *Acharya Sushruta* mentioned that *Vedana* can not arise in body without involvement of the *Vata Dosha*<sup>2</sup>. So, the drug or procedure which alleviates *Vata Dosha* acts as a potent *Vedana Sthapaka*.

Nowadays *Arsha*<sup>3</sup> is a very common disease. It mainly occurs in ano-rectal region which is a very sensitive area. *Acharya Sushruta* mentioned *Shashtra Karma* or surgical procedure for the management of *Arshas*.<sup>4</sup> When any surgical or para-surgical procedure is done in ano-rectal region it creates so much pain which can be considered as post operative pain and it needs an urgent medication. But the post operative pain management in *Ayurvedic* point of view is still a setback. So, in *Ayurvedic* field there is a need to establish an effective treatment for pain management.

In the present study the patients who had undergone *ksharasutra* ligation for *Arshas* were subjected to *Vedana Sthapaka Kashaya* for Post Operative Pain Management. An assessment of the analgesic effects was done and the results were compared with modern Non Steroidal Anti Inflammatory Drug, Diclofenac Sodium.<sup>5</sup>

So, in this study an effort was made to evaluate the analgesic effect of *Vedana Sthapaka Kashaya*<sup>6,7</sup> in post operative pain management of *Arshas*.

**Objective:** To evaluate the efficacy of *Vedana Sthapaka Kashaya* in post-operative pain management of patients undergone *ksharasutra* ligation for *Arshas*.

#### **Materials and Methods:**

**Sample Source:** Patients attending OPD and IPD of Alva's Ayurveda Medical college Hospital, Moodubidire, medical camps and other referrals were selected. Each patient was selected for the trial after voluntary consent.

**Sample size:** Minimum 40 patients who were fit for the study as per inclusion criteria were selected randomly and placed into 2 equal groups, Group A (Standard Group) and Group B (Trial Group).

**Study design:** Open Clinical Study.

**Selection Criteria:** The cases were selected strictly as per the pre-set inclusion and exclusion criteria.

**Diagnostic criteria:** Patients who have undergone *Ksharasutra* ligation for *Arshas*.

#### **Inclusion criteria**

1. Patients of both sexes in age group of 21-70 years were included.
2. Patients fulfilling the diagnostic criteria.

#### **Exclusion criteria**

1. Patients having unexplained severe pain before operation.
2. Patients who develop other complications apart from pain in post operative period.
3. Pregnant women were excluded.

#### **Interventions**

A total number of 40 patients were randomly selected for the study. They were divided into 2 groups of each 20 patients.

#### **Group A - (Standard Group)**

Sample size: 20 patients

Tab. Diclofenac sodium administered orally

Dose: 50 mg B.D. after food

Duration: 5 days

#### **Group B - (Trial Group)**

Sample size: 20 patients

*Vedana sthapaka kashaya* administered orally

Dose: 35 ml T.I.D. before food

Duration: 5 days

Criteria for assessment were based on Mc Gills Pain Score Index. Review of intensity of post operative pain was done everyday up to 5 days. Findings were subjected for statistical analysis.

#### **Materials**

- *Vedana sthapana gana dravya*
- Tab. Diclofenac sodium 50mg

#### **Preparation of *Kashaya***

- ✓ The drugs of *vedana sthapana gana* i.e. *shala, katphala, kadamba, padmaka, tumba, mocharasa, shirisha, vanjula, elavaluka, ashoka* were made into coarse powder form separately.
- ✓ Then the coarse powder of all the drugs was taken in equal quantity.
- ✓ One part of coarse powder was mixed with 16 parts of water and boiled.
- ✓ When one eighth of initial content was remained, it was filtered and thus the *kashaya* was prepared.

Drug presentation- It was presented in the form of *kashaya* and was administered orally 35ml TID before food.

**Assessment Criteria:**

**Subjective Criteria**

- Post operative Pain.

**Observation:**

**Age:** Maximum of 27.50% of patients are in the age group of 41-50 years. This may be due to the reason that most of the people of this age group belong to working class. Long time sitting, strenuous work, irregular and unwholesome food in this particular age group might be the triggering factors. **Occupation:** It was evidenced from the study that maximum i.e. (30%) were doing service, the people who are doing office works, due to prolonged sitting, avoidance of natural urges due to inevitable circumstances, faulty food habits etc. may be the reason for haemorrhoids. **Socio-Economic Condition:** Analysis of Socio-economic status of 40 patients revealed that majority of patients i.e. (55%) belonged to middle class, Mental

stress, strain and the living standard of middle class may be the reason for GI disturbances causing the haemorrhoids. **Diet:** Maximum patients 60% were of mixed diet. Intake of meat, fish, more spices etc lead to *Arshas* as they contain more protein and less fibre and are *ushna* and *vidahi*. **Appetite:** Among 40 patients, 72.50% were having poor appetite. This point toward the role of *mandagni* which is a causative factor in the manifestation of *Arshas*. **Nature of Bowel Habits:** In this series a maximum 82.5% of patients were having constipated bowel. More straining for expelling constipated stools will leads to dilation of venous plexus.

**Result:**

In the present clinical study, management of post-operative pain with Diclofenac Sodium and *Vedana sthapaka kashaya* in *Arshas* were studied and results of all the cases were noted based on statistical data. For Grading of pain: Mc Gills pain score index 0- No pain, 1- Mild pain, 2- Discomforting, 3- Distressing, 4- Horrible, 5- Excruciating pain

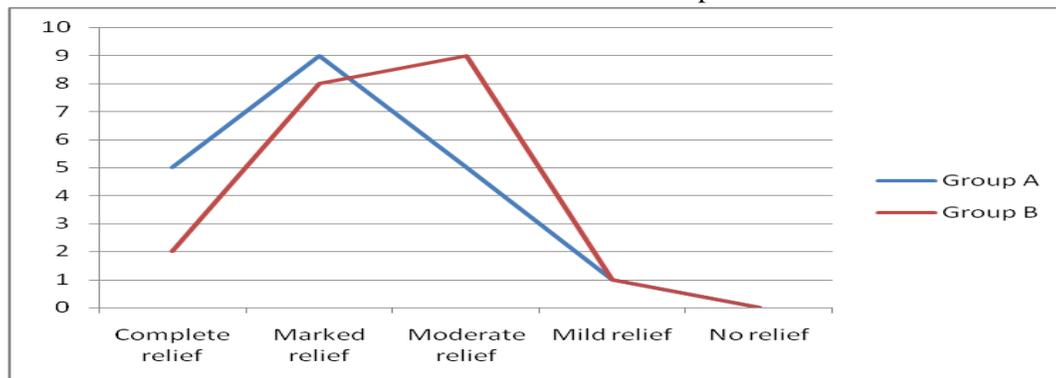
**Table 1:** Overall Clinical Assessment Of Results Of Both Group Based On McGill Pain Score Index

Sl. No.	Relief	Group A	Relief % of Group A	Group B	Relief % of Group B	Total	Total % Relief
1	Complete relief	5	25	2	10	7	17.5
2	Marked relief	9	45	8	40	17	42.5
3	Moderate relief	5	25	9	45	16	40
4	Mild relief	1	5	1	5	2	5
5	No relief	0	0	0	0	0	0

Based on McGill’s pain score index, the overall effect of therapy in Group A and Group B is as follows- Complete relief in 7 patients (17.50%), Marked relief

in 17 patients (42.5%), Moderate relief in 16 patients (40%), Mild relief in 2 patients (5%) and 0 patient (0%) with no relief.

**Figure 1:** Overall Clinical Assessment Of Results Of Both Group Based On McGill Pain Score Index



**Table 2:** Effectiveness on Pain of Both Groups

Post op. Pain	EFFECTIVENESS %				
	1st day	2nd day	3rd day	4th day	5 <sup>th</sup> day
Group A	11.76	25.88	35.29	52.94	74.11
Group B	6.024	15.662	31.325	49.327	65.06

## DISCUSSION

**Discussion on comparative effect of both the Groups:** Pain was reduced by 74.11% in Group A & 65.06% in Group B. Both the groups showed improvements with significant p-value of < 0.001. Severity of pain in both the groups is mainly due to aggravation of *vata dosha* and irritation of *sangyavaha srothas* caused by *ksharasutra* ligation. According to modern science, post operative pain initiates by injury to the tissue, ultimately the nerve ending, and pain receptors present in the skin and other tissue. But the quantum of pain depends upon Psychological factor, Neurological factor and Constitutional status of the individual.

**Discussion on over all probable mode of action of vedanasthapaka kashaya:** Vedanasthapana means that which eliminates *dukhatmaka vedana* i.e. painful stimuli in the body. Here, Vedanasthapana gana includes the following drugs - Shaala, Katphala, Kadamba, Padmaka, Tumba, Mocharasa, Shirisha, Vanjula, Elavaluka, Ashoka.

1. Shala, shirisha and vetasa are having *madhura rasa* and *madhura rasa* helps in *vata shamana* and leads to *vedana sthapana*.
2. Guna like *ushna, guru* and *snigdha* of *shala, kadamba* and *padmaka* respectively alleviates vitiated *vata* and helps in *vedanasthapana*.
3. Drugs like *katphala* and *tumba* are having *ushna virya* which pacifies *vata dosha* and enhance *vedana sthapana*.
4. Drugs like *mocharasa, katphala, tumba, shala, kadamba* and *tumba* are having *vata-pitta, vata-kapha* and *tridosahara* property. All these drugs are capable of *vata shamana* and acts as *vedana sthapana*.
5. *Katphala* having *sandhaneeya* property and *Sirisha* having *vrana ropana* property. Both helps in wound healing and thus helps in reducing pain.
6. *Sirisha* and *vetasa* are having *shothahara* property. Reducing the *shotha* or inflammation will also help in reducing pain.

7. The *pradhana karma* of *shala, katphala, kadamba, padmaka, elabaluka, shirisha* is *Vedana sthapana*, so these drugs acts as *vedana sthapaka* by reducing pain.
8. Drugs like *katphala, kadamba, padmaka, ashoka* etc are having chemical compositions like *myricitrin, myricetin, pentosan, genistein* etc. which shows analgesic and anti-inflammatory effect and therefore gives relief from pain.

Hence, Pain is always due to aggravation of *Vata* and *Guru, Ushna, Picchila* and *Snigdha* substances eliminates pain by carrying out *vatanulomana*.

So, the combination of all the above said drugs is *vedana sthapaka kashaya* which had done the *vedana sthapana* effectively.

## CONCLUSION

The review of literature and clinical study provides certain useful conclusions. *Ksharasutra* ligation in *Arsha* will cause lot of pain in post operative period and this pain must be managed for better acceptance of the procedure.

The pain was well tolerated by the patients of both the groups from 3<sup>rd</sup> post operative day.

There were no adverse effects observed due to drug in both the groups during the study. In *ksharasutra* ligation, post-operative pain management using Diclofenac sodium tablets has been effective so far. *Vedanasthapaka kashaya* was also found effective in relieving pain. Although there were complain of mild pain by the patients of Group B (*vedanasthapaka kashaya*) even before completion of 8<sup>th</sup> hour which was speculated time for re-administration of *kashaya* in post-operative period. But pain was well tolerated by the patients. There were no such complains observed in Group A (Tab. Diclofenac sodium) patients. There is no evidence of any secondary infection seen, in both the groups. *Vedanasthapaka kashaya* also found to be useful in healing of the wound far earlier when compared to Diclofenac sodium tablets. From

first assessment day onwards got statistically significant changes in both the groups. Group A got 74.11% result in relieving the post operative pain. Group B got 65.06% result in relieving the post operative pain. Though the Trial group is showing less result than the standard group but statistically showing significant result i.e. P value <0.001.

## REFERENCES

1. K. Sembulingam and Prema Sembulingam, Essentials of Medical Physiology, 5<sup>th</sup> edition, Jaypee Brothers Medical Publishers (P) Ltd, chapter no-145, page no:803.
2. *Acharya Sushruta, Sushruta Samhita* with English Translation, Notes, Appendices and Index, Translated by Prof. K. R. Srikantha Murthy, reprint year 2010, Chaukhamba Orientalia, A House of Oriental and Antiquarian Books, Varanasi, volume-1, *Sutra sthana*, chapter no-17, Sloka no:7, page no:125.
3. *Acharya Agnivesha, Charaka Samhita* with Charaka Chandrika Hindi Commentary by Dr. Brahmanand Tripathi, reprint 2008, Chaukhamba Subharati Prakashan, Varanasi, Volume-2, *Chikitsa sthana*, chapter no-14, Sloka no:6, page no:509.
4. *Acharya Sushruta, Sushruta Samhita* with English Translation, Notes, Appendices and Index, Translated by Prof. K. R. Srikantha Murthy, reprint year 2010, Chaukhamba Orientalia, A House of Oriental and Antiquarian Books, Varanasi, volume-2, *Chikitsa sthana*, chapter no-6, Sloka no:3, page no:77.
5. Bailey and Love's Short Practice of Surgery edited by RCG-Russell, Norman S Williams and Christopher J. K. Bulstrode, 24th edition, International Students Edition, Chapter-81, Page no: 1447.
6. *Acharya Agnivesha, Charaka Samhita* with Charaka Chandrika Hindi Commentary by Dr. Brahmanand Tripathi, Reprint 2008, Chaukhamba Subharati Prakashan, Varanasi, Volume-1, *Sutrasthana*, Chapter 4, Shloka No 18, Page No 96.
7. *Acharya Sarngadhara, Sarngadhara Samhita*, Annotated with Dipika Hindi Commentary by Dr. Brahmanand Tripathi, 3<sup>rd</sup> edition 1998, Chaukhamba Subharati Prakashan, Varanasi, *Madhyama Khanda*, chapter no-2, Sloka no:1-2, page no:133.

**Table 3:** Effect of The Treatment in Group A

Symptoms	MEAN SCORE				%	SD	SE	t value	P value
	BT		Mean AT	BT-AT					
Pain on McGill pain score	4.25	AT1	3.75	0.50	11.76%	0.550	0.123	4.359	<0.001
		AT2	3.15	1.10	25.88%	0.587	0.131	6.850	<0.001
		AT3	2.75	1.50	35.29%	0.550	0.123	13.077	<0.001
		AT4	2.00	2.25	52.94%	0.562	0.126	18.291	<0.001
		AT5	1.10	3.15	74.11%	0.852	0.191	18.905	<0.001

**Table 4:** Effect of The Treatment in Group B

Symptoms	MEAN SCORE				%	SD	SE	t value	P value
	BT		Mean AT	BT-AT					
Pain on McGill pain score	4.15	AT1	3.90	0.25	6.024	0.553	0.124	2.517	<0.01
		AT2	3.50	0.65	15.662	0.513	0.115	5.940	<0.001
		AT3	2.85	1.30	31.325	0.489	0.109	12.365	<0.001
		AT4	2.10	2.05	49.397	0.447	0.100	23.267	<0.001
		AT5	1.45	2.70	65.060	0.759	0.170	16.480	<0.001

**Table 5:** Effectiveness Comparison Between the Groups

Post op. Pain	EFFECTIVENESS %				
	1st day	2nd day	3rd day	4th day	5 <sup>th</sup> day
Group A	11.76	25.88	35.29	52.94	74.11
Group B	6.024	15.662	31.325	49.327	65.06

**Figure 2: Effectiveness Comparison between The Groups**



**Source of Support: Nil**

**Conflict Of Interest: None Declared**

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