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### A COMPARATIVE CLINICAL STUDY OF KADALI KSHAR PRATISARAN AND INJ. SETROL IN THE MANAGEMENT OF ABHYANTAR ARSHA W.S.R. TO INTERNAL HAEMORRHOIDS.



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# ABSTRACT

There is a very peculiar role of "Kshar Karma" (an Anushastra), in the management of Arsha, as described by Sushrutacharya. Acharyas have mentioned Kadali as suitable for the Kshara formulation. Patients suffering from AbhyantaraArsha are subjected to KadaliPratisaraneeyaKshar and efficacy ofKadaliKsharPratisaran and inj. Setrol is compared in the management of AbhyantarArsha.

In Clinical study an Open randomized controlled clinical trial is conducted of trial group A and control group B for 30 patients in each group. In observations a detailed explanation is given aboutdistribution of patients according to age, sex, occupation. The results of the study are analyzed statistically compared and are presented in tables and graphs form. By highlighting the outcome of the study along with limitations and scope of further improvement it is concluded that KadaliKsharpratisarana gives potent effects in AbhyantarArsha.

# **KEYWORDS**

Arsha, Ksharpratisaran, Inj. Setrol

### INTRODUCTION

Arsha is a disease characterized by formation of ankuras (nodules) at GudaPradesh (anal region). Inclusion of Arsha (Haemorrhoids) in Ashtaumahaagada by Sushrutacharya depicts its importance<sup>1</sup>. References of Arsha are found since Vedic period. This diseaseis very specific to human race because of our erect posture. As revealed from recent statistics irrespective of age, sex and socioeconomic status more than 04% of the population suffers from this disease. Its increased incidence today is due to today's food habits, sedentary life style.

Improper treatment or negligence of Arsha may develop complications like thrombosis, strangulation, portal pyaemia, fibrosis, suppuration, haemorrhageetc<sup>3</sup>. Sushrutacharya states that landing in complications makes ArshaYapya or Asadhya<sup>2</sup>. Unfortunately all its management procedures like Sclerotherapy, Band ligation, Cryosurgery, Laser therapy etc<sup>4</sup>, have limitations and postoperative complications. Hence, it leaves a scope to find a remedial measure.

Sushrutacharya has considered Ksharakarma as most effective procedure amongst Anushastras due to its properties like Chedana, Lekhana, and Ropana<sup>5</sup>. Acharyas have mentioned Kadali as suitable for the Kshara formulation<sup>6</sup>. Kadali being Pittahar, Balya, Sheetaviryatmak is useful in Arsha. Also previous works carried out on Arsha as Pratisaran with ApamargaKshar, ChitrakKshar revealed that these Kshara being more Teekshnain nature, are more corrosive and cause severe burning pain which may land patient into postoperative complications. KadaliKshar was never tried earlier so in order to formulate and standardized it and as an effort to find a procedure free from postoperative complications, cost effective, minimal invasive in the management of AbhyantaraArsha, this research was carried out. In present study, patients suffering from AbhyantaraArsha are subjected to KadaliPratisaraneeyaKshar as explained in classical texts.

### **3) HYPOTHESIS**

- H<sub>0</sub>- KadaliKshara karma procedure is not useful in the management of AbhyantaraArshas.
- H<sub>1</sub> -KadaliKshara karma procedure is useful in the management of AbhyantaraArsha.

### 4) AIM & OBJECTIVES

### Aim:

To evaluate and compare the efficacy of KadaliKsharPratisaran and inj. Setrol in the management of AbhyantarArsha.

### **Objectives:**

- To observe any adverse effect of KsharaKarma and inj. Setrol on patients of AbhyantarArsha.
- Compare the effects of KadaliKshar and InjSetrolin treatment of AbhyantarArsha.

# 5) MATERIALS & METHODOLOGY (STUDY DESIGN STATISTICALANALYASIS):-

This is an Open randomized controlled clinical trial. The study was conducted on the patients visiting the OPD and IPD of Shalyatantra department BVDU Ayurveda Hospital.

### Study medication:

KadaliKshar is used for this study in trial group. Kadaliwas standardized as per the criteria mentioned in the Ayurvedic Pharmacopeia of India<sup>7</sup>.

### **Comparator:**

Inj.**SETROL** (Each ml contains:Sodium TetradeclySulphate ConcentrateEquivalent to Sodium TetradecylSulphate30 mg) was used as a control group<sup>8</sup>.

### Selection and Exclusion criteria:

Irrespective of sex and socioeconomic status, the patients reporting complaints of P/R bleeding, constipation or any symptoms of AbhyantarArshawere screened along with proctoscopic examination and eligible patients were included in the study.

### 1. Inclusion criteria:

- Diagnosed Patients of AbhyantaraArsha with I, II degree.
- Patients in age group of 18-70 years.
- Patients with controlled systemic diseases like Diabetes and Hypertension.

### 2. Exclusion Criteria:

- AbhyantaraArsha of secondary origin and /or associated pathology of colon and anal canal like Ulcerative colitis, Crohn's diseases, condyloma, Parikartika i.e. Fissure in Ano and Bhagandara i.e. Fistula in Ano, Malignancy of rectum and anal canal.
- Patients having Hb% less than 8 gm%.
- Patients associated with uncontrolled systemic diseases like Diabetes and Hypertension.
- Pregnant women.
- · Patients with infective conditions like H.I.V. and Hbs.Ag.

### Method of randomization:

Patients befitting the eligibility criteria were selected randomly by chit method and divided into two groups.

Study groups: Two groups –

Group A: - Trial Group KadaliKsharLepa

Dose-As per requirement for Ksharlepa on each Arsha

AbiiyamarArsha.	Dose-Aspertequiler	nent for Kshartepa on caen Arsha
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Sitting-Single sitting for each Arsha

### Application procedure for KsharaPratisaran-

Lithotomy position given, anal canal and peri anal area painted with antiseptic solution, draping done.Arshalocated with Proctoscopic examination.Haemorrhoid was made to protrude into the slit proctoscope.Protruded mass encircled by cotton to avoid spillage of Kshar on normal mucosa.Kshara applied over hemorrhoid with the help of applicator for VaakshatamatraPramana i.e. approximately 90 seconds. When colour of mass became pakwajambuphalasamana i.e. Reddish black in colour, Kshara was washed with Kanji for neutralization.Same procedure repeated over other mass, after one week if present.Patient observed for any adverse effects.

#### Group - B:-Control group Inj. Setrol Active medication Inj. Setrol

Dose Maximum 1ml for each Arsha

Sitting Single sitting for each Arsha

### Application procedure for injSetrol-

Arsha made to protrude in to the slit proctoscope. Then inj. Sterol 0.5 ml was diluted with 0.5ml distilled water and injected sub mucosal in each Arsha. Color change was noted. Same procedure repeated over the other mass, if present. Patient was observed for any adverse effects.

Sample size: 30 patients in each Group

#### **Treatment details: Post procedure medication**

AnulomakDravya- GandharvaHaritaki 1gm / night for 14 days with KoshanaJala.

Shoolaghna- TriphalaGuggulu 500mg Twice in a day, for 7 Days with KoshanaJala.

AvgahaSweda- AvagahaSweda with Lukewarm water twice in a day for 7 Days

**follow up** Procedure & medicine was started. Assessment of patients before treatment was done. Follow up of patients taken on  $4^{th}.7^{th.14th}, 21$  st day and assessment of patients after treatment was done.

#### Investigations-

- BLOOD COMPLETE HAEMOGRAMWITH E.S.R.
- BLOOD SUGAR FASTING AND P.P.
- BT.CTAND PTINR
- HIVIANDII.
- HBS.AG.
- URINE

Post procedure medication ,Screening and follow up,Investigations are same in both group.

#### 6)ASSESSMENT OF EFFICACY PARAMETERS: 1.DEGREE OF HAEMORRHOIDS – ACCORDING TO

# INTERNATIONAL SCORE<sup>9</sup>

- 0- NOHAEMORRHOIDS
- 1- I<sup>0</sup>HAEMORRHOID DOES NOT COME OUT OF THE ANUS.
- 2- II<sup>0</sup> HAEMORRHOIDS COME OUT ONLY DURING DEFECATION & IS REDUCED SPONTANEOUSLY AFTER DEFECATION
- 3- III<sup>0</sup> HAEMORRHOIDS COME OUT ONLY DURING DEFECATION & DO NOT RETURN BY THEMSELVES, BUT NEED TO BE REPLACED MANUALLY
- 4- IV $^{\circ}$  HAEMORRHOIDS ARE PERMANENTLY PROLAPSED & PROPER REPLACEMENT IS NOT POSSIBLE.

### 2.P/R BLEEDING

- 0- no bleeding
- 1 Once in a while
- 2 1-2 times in a week
- 3 Regular Bleeding since last few days
- 4 Profuse Bleeding

The following criteria were used to assess the efficacy of the procedure, in the corresponding groups,

- Relief in the signs and symptoms.
- Occurrence of SamyakDagdhaLakshanas.

- Time taken for complete dissolution of Arshankura.
- Occurrence of complications.
- Convenience of the procedure.

## OBSERVATIONS

# Table A-1 : AGE

Age group in year	No. of patient in Group A	No of patient in Group B
25-30	14	13
30-35	11	10
35-40	3	6
40-45	2	1

### Table A-2 : SEX

	Gro	up A	Gro	up B
Sex	Male Female		Male	female
Patients	21	9	20	10

### Table A-3: OCCUPATION

Occupation	No. of patient Group A	No. of patient Group B
Service	11	9
Labour	9	10
House wife	5	6
Driver	5	5

### Table A-4 : HABBITS

Habbits	Group A	Group B
Tobacco chewing	6	6
Tea/coffee	14	15
Alcoholic	4	5
Bidi /cigrarete	6	4

#### Table A-5: PRAKRUTI

Prakruti	VK	VP	PK
No. of Patient in Group A	11	11	8
No. of patientinGroup B	12	9	9

#### Table A-6: BLEEDING

Bleeding							
	Gro	Group A Group B					
Seveity	BT	AT	BT	AT			
Mild	9	0	15	0			
Moderate	16	0	13	0			
Severe	5	0	2	0			

Symptom levels significantly reduced here, hence H0 is rejected, so both groups are equally effective.

#### BLEEDING GROUPA

	Pre	Post	t-cal	t-table	Result
Mean	1.866	0	15.259	2.66	Reject H0
S.D.	0.67	0			

Since t cal> than t table then we reject H0, i.e. Treatment is effective on bleeding

### GROUPB

	Pre	Post	t-cal	t-table	Result
Mean	1.566	0	15.966	2.66	Reject H0
S.D.	0.5374	0			

Since t cal> than t table then we reject H0i.e. Treatment is effective on bleeding

	Group A	Group B	t-cal	t-table	Result
D	1.866	1.566	1.91	2.66	Reject H0
S.D.	0.67	0.5374			

tcal<t table hence group A & Group B are equally effective.

#### Table A-7 : degree of Arsha

Degree of Arsha					
	Gro	up B			
	BT	AT	BT	AT	
Ι	21	0	25	0	
II	9	0	5	0	

Levels significantly reduced hence H0 is rejected, so both groups are equally effective.

Shothi					
	Pre	Post	t-cal	t-table	Result
Mean	1.3	0	15.539	2.66	Reject H0
S.D.	0.458	0			

Since t cal> than t table hence H0rejected..Treatment is effective on colour

#### GROUPB

	Pre	Post	t-cal	t-table	Result
Mean	1.166	0	17.496	2.66	Reject H0
S.D.	0.3652	0			

Since t cal> than t table then we reject H0i.e. Treatment is effective on colour

	Group A	Group B	t-cal	t-table	Result
Mean	1.3	1.166	1.25	2.66	Reject H0
D.	0.458	0.3652			

tcal<t table hence group A & Group B are equally effective.

#### DISCUSSION

KadaliKsharPratisaran is cost effective treatment. KadaliKsharpratisaran in Arshais an easy method to perform on OPD basis with significant result, fewer side effects. Probable action of KadaliKshar is corrosive. It acts as the cauterization of the bleeding pile mass. Less or minimal complications (sometimes local edema if applied on external haemorrhoids i.e. below dentate line) is occurred as compared with inj. setrol which may cause proctitis, sensitivity etc. Inj. SetrolIts action is on the lipid molecules in the cells of the vein wall, causing inflammatory destruction of the internal lining of the vein and thrombus formation eventually leading to sclerosis of the vein. Maximum patients of Arsha are Vatadhik Pitta and VatadhikKaphaPrakrutiwere found. As far as age is concerned, the occurrence of the Arshais very common in age group 25yrs to35 yrs. Arsha disease affects persons, irrespective of sex .In this study more male patients are found than female. Most patients of Arshawere workers, laborers and service class. Among most of all the patients were addicted to Tea, Tobacco, smoking or alcohol. Agnimandya which is the main cause of Arsha was also found in majority of patients. Arsha is found generally associated with Malavibandh (Constipation) in patients, as stated in texts. In Arsha a large group of anaemic patients were found.

#### CONCLUSION AND RESULT

- KadaliKsharpratisarana gives potent effects in AbhyantarArsha (internal hemorrhoids).
- 2. The KadaliKshar is easy to prepare.
- In the management of Arsha's two symptoms i.e. bleeding and colour of pile mass; better result in KadaliKshar is observed, so we can conclude that treatment given in trial group is equally efficient to treatment given to control group.
- The both drugs have no side effects are quite safe and easy to apply.
- From the socio-economic view the KadaliKshar is relatively cheap.
- Ksharpratisaran in the management of Arsha is one of the good ambulatory types of treatment in area of parasurgery (anushalya).

Photo graphs	Before treatment	During treatment	After treatment
KadaliKs har			
Inj. setrol			

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