

Clinical Research

The role of *Apamarga Kshara* in the treatment of *Arsha*T. S. Dudhamal, S. K. Gupta, Chaturbhuj Bhuyan, Kulwant Singh¹Department of Shalya Tantra, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, India,
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Abstract

As per the available treatment modalities of *Arsha*, the *Kshara karma* modality is the best one, taking into the consideration its convenience, easy adoptability, cost-effectiveness and curative results. Under this parasurgical procedure, various forms of external *kshara* application are used in treating the *Arsha*. These are *Ksharasutra* Ligation (KSL), *ksharapatan*, etc. KSL is a surgical procedure, while *ksharapatan vidhi* is local application and seems to be effective with an easy procedure. Several studies of *ksharapatan* had been conducted; so the time has come to specify the study of *ksharapatan*, e.g., according to degree of pile mass and different symptoms and signs. In this present study, *apamarga* (*Achyranthus aspera* Linn.) *kshara*, one among the best qualitative *ksharas*, was locally applied directly on the different sizes, shapes and degrees of *Arsha*, to find out its effectiveness with or without any untoward effect. A total of 30 patients were treated by local application of *Apamarga kshara*. The *ksharapatan* was done every day, for 7 days in 3 g dose, and the result was assessed thoroughly on the basis of observation according to the specially designed proforma. *Apamarga kshara* was prepared as per the standard method described in Ayurvedic texts. Patients suffering from *Arsha* were selected by simple random sampling method, with the complaints of bleeding per rectum, *Vedana*, *Srava*, *kandu* and prolapse. Lastly, it was concluded that *ksharapatan* had shown significant improvement in 1st and 2nd degree of pile masses without any side effect.

Key words: *Apamarga*, *Arsha*, hemorrhoids, *kshara*, *ksharapatan*, *Ksharasutra* Ligation (KSL), parasurgical, *pratisaraniya*.

Introduction

Kshara chikitsa has been in practice since 500 BC. As per *Sushruta*, the *kshara* is prepared from 22 plants such as *Achyranthus aspera*,^[1] *Euphorbia nerifolia*, *Cassia fistula*, *Holarrhena antidysentrica*,^[2] *Adhatoda vasica*, *Calotropis gigantea*, *Sesamum indicum*, etc. There are two types of *kshara* preparation: one is *paniya kshara* for internal use while the other one is the *pratisaraniya kshara* for external use. The *pratisaraniya kshara* is further divided into three types, i.e., *Mridu* (mild in action), *madhya* (moderate in action) and *tikshna*^[3] (strong in action). In this study, *tikshna kshara* was taken into consideration for local application directly on the *Arsha*. The wide descriptions of *Arsha* including its treatment

are available in the classics. But to emphasize its graveness, *Arsha* is enumerated under the heading of *ashtomahagada*^[4] and occurs in *guda pradesh*, the seat of *sadyapranahar Marma*^[5] which requires delicate management.

Modern system of treatment has adopted a variety of methods like sclerotherapy (injection of sclerosent agent in submucous spaces of piles), rubber band ligation, infra red coagulation (IRC), cryosurgery (using N₂O gas), hemorrhoidectomy,^[6] etc., according to the nature and degree of pile mass, but these procedures have their own merits and demerits with limitations.

Charaka has given more emphasis on the conservative treatment and prescribed suitable dietary regimes with drugs to the patients for curing of *Arsha* by improving *deepan* and *pachan*^[7] *karmas* of the *agni* (enhancement of digestive capacity) in the body. Further, he has also advised *kshara* treatment for different types of *Arsha*. However, every system of medicine has given its own way of treatment for treating the *Arsha*.

Sushruta has basically mentioned four types of treatments, i.e., *bheshaja*, *ksharakarma*, *agnikarma* and *Shastrakarma* for *Arsha* and he has given more emphasis on *ksharakarma*^[8] modality.

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There are certain methods of *ksharakarma*. One of them is *Ksharasutra* method which has been proved very effective in the treatment of fistula in ano, different types of piles, fissure in ano and is being practiced widely. This effectiveness of *Ksharasutra* can be attributed only to the potency of the particular content, i.e., *kshara*. Accordingly, the *Apamarga* (*Achyranthus aspera* Linn.) *kshara* is said to be very useful in treating the piles locally. In this regard, it is reviewed that several different preparations of plants have been tried locally to treat hemorrhoids by many investigators as well as the agencies. But *kshara* in piles and *Ksharasutra* therapy in fistula are found to be superior over the others. Hence, it is the need of the hour to search for different *ksharas* of various plants in the treatment of different disorders as per indication in Samhita.

Aims and objectives

1. To check the efficacy of *apamarga ksharapatan* in cases of *Arsha*.
2. To find out an alternative herbal remedy as an office procedure in the management of *Arsha*.

Materials and Methods

Drug review

Tikshna apamarga^[9] *kshara* was prepared according to the classical views. The preparation of *kshara* has been described in detail and pharmaceutical analysis is given below.

Pharmaceutical analysis

The pharmaceutical study of *apamarga kshara* was done in the pharmaceuticals department of IPGTRA, Jamnagar, and the findings are as follows:

- loss on drying at 110°C: 7.25% w/w,
- pH of 5% by pH paper: 10,
- ash value: 67.75% w/w, and
- water soluble extractive: 78% w/w.

Organoleptic characters

- Color: Dull white
- Touch: Smooth
- Taste: Alkaline

Quantitative estimation

- Magnesium: Not 0.092-1.045% w/w
- Sodium: Not <1.000% w/w, not >28.844% w/w
- Potassium: Not <0.05% w/w, not >30.54% w/w
- Chloride: Not <15.09% w/w, not >19.81% w/w
- Carbonate: Not <13.92% w/w, not >25.583% w/w
- Sulfate: Not <12.4755 w/w, not >21.280 w/w
- Calcium: Not <1.685 w/w, not >3.5185 w/w
- Phosphate: Not <4.211% w/w
- Iron: Not >0.263% w/w
- Moisture: Not >1.414% w/w
- pH value: Not <10.1, not >11.8

Clinical study

In this study, a total of 30 patients of *Arsha* were selected by adopting simple random sampling method, from OPD and IPD of the Department of Shalyatantra, I.P.G.T. & R.A., Hospital, Gujarat Ayurved University, Jamnagar, Gujarat. All the patients had completed the course of treatment with *apamarga ksharapatan*.

Inclusion criteria

Patients presenting with complaints of *Arsha* (1st, 2nd and 3rd degree piles), i.e., bleeding per rectum, prolapse of piles, pain, discharge and pruritus, irrespective of age, sex, religion, education and socioeconomic status, were included in this study.

Exclusion criteria

Patients suffering from carcinoma of rectum, hypertension, diabetes mellitus and cardiac disorders were excluded.

Diagnostic criteria

Diagnosis was made on the basis of physical examinations by performing thorough P/R examinations, i.e., inspection, palpation digital and proctoscopic examination.

Investigations

Routine hemogram, blood sugar, routine and microscopic examination of urine and stool were carried out.

Ksharapatan Vidhi (Method of Kshara application)

Kshara application was done locally on the piles mass as per the classical technique called "*ksharapatan vidhi*." It was conducted according to the principles of *trividhakarma*.

Pre-operative procedure

1. Routine investigations were insured.
2. Fitness of patient was checked.
3. Written inform consent of patient was taken.
4. Cleaning of bowel was done by *Erand bhrishta haritaki* 5 g at night.
5. Shaving and cleaning of the perianal area was done.

Operative procedure

1. The patient was laid down in lithotomic position.
2. The perianal part was painted and draped with a sterilized cut sheet.
3. Then, a lubricated proctoscope with cut aperture was introduced in the anal canal.
4. The pile mass was fixed at the suitable place into the aperture.
5. After cleaning the pile mass with gauze pieces, *tikshna apamarga kshara* was applied.
6. Applied *kshara* was kept for 2 minutes or till the time taken to count up to the 100.^[10]
7. The *kshara* was then washed away with *takra* (buttermilk).
8. After application of the *kshara*, the pile mass changed to blackish (*Jambu phalavat*, i.e., the fruit of *Syzizium cumini* Linn.) in appearance.
9. Madhu and ghrta were applied to overcome *gudadaha* (burning sensation).
10. This procedure was repeated for each pile mass separately at the same sitting.

Postoperative procedure

1. Light diet was allowed by the evening.
2. *Erand bhrishta haritaki* 5 g at night was administered.
3. *Avagaha sweda*^[11] (warm water sitz bath) with *panchavalka kwatha* 8 hourly was advised from the next day morning.

Duration of treatment

Apamarga kshara was applied on each pile mass daily in 3 g dose for 7 days.

Follow-up of the patient

It was done weekly for 2 months to see for recurrence of the symptoms and any adverse effect.

Assessment criteria

Complete relief: 76–100% relief in symptoms, with complete reduction of pile mass

Marked improvement: 51–75% relief in symptoms with or without reduction in pile mass

Improvement: 25–50% relief in complaint of patient

No improvement: No relief in symptoms or reduction in pile masses

Assessment of results

Assessment of results was done based on relief of sign and symptoms, i.e., bleeding per rectum, pain, pruritus, discharge and reduction of size in pile mass on the basis of scoring pattern.

Results and Observations

In this study, male patients were more in number [Table 1]. Maximum incidences of *Arsha* were observed in patients of *Pittaja Prakriti*, i.e., *vatapittaja* (43.33%) and *kaphapittaja* (33.33%), as per Table 2. Bleeding is directly related with *Pitta Dosha*, so more incidence of *Arsha* had been found in *Pitta pradhan Prakriti*. In Table 3, the breakdown of the symptoms and signs according to the number of cases is shown. It shows that the maximum patients (90%) had *raktasrava* (P/R bleeding) as it was the cardinal symptom of *Arsha* and also *vibandha* (constipation) (83.33%) in the form of causative factor and symptom found in the patients. *Mahamulani* type of *Arsha* (broad base of pile) was observed in 61.42% patients, which proves the predominance of *Kapha Dosha* [Table 4]. Maximum numbers (51% of pile mass) of pile mass had been observed in the 2nd degree [Table 5]. Maximum number of pile masses was situated in 7 o'clock position [Table 6]. Table 7 shows the overall result; markedly improved result was in 56.66% of patients, whereas 16.66% of patients showed no improvement and 26.66% patients had shown improvement.

Table 8 shows that *ksharapatan* therapy had provided 84.33% relief in *raktasrava* and *Vedana*, which was found statistically significant. Relief in *gudadaha* was observed to the extent of 82.00%, whereas 75.33% relief was seen in *Pichhila Srava*. 73.33% relief was recorded in *arshabhransha*, while 77.66% relief was recorded in *gudakandu*.

In a few patients, burning sensation was observed during and after the *ksharapatan*, which was managed with *takra* and local application of *Yashtimadhu ghrita*. Some patients complained of watery discharge and slight oozing of dark colored blood after the application of *kshara*, which was self-controlled, in due course of time.

Discussion

The number of patients of lower economic status was found to be more, which may be due to their irregular dietary habits.

It is also observed that labor class patients were more affected because of their style of work like sitting in *utkatasan* which leads to vitiation of *apan vayu* vigorously, a prominent etiological factor for causing *Arsha*. Tobacco addiction was noted in most of the patients and this was responsible for developing the *Agnimandya* which was also one of the causative factors for *Arsha*. The *Agnimandya* was found in 60% of patients and this proved again the observation of the learned writer of the *Astang Hridaya*, i.e., *Vagbhata*.^[12] This hypothesis has been further

Table 1: Sex of patients (n = 30)

Sex	No. of patients	Percentage
Males	23	76.66
Females	07	23.33

Table 2: Prakriti of patients (n = 30)

Prakriti	No. of patients	Percentage
<i>Vatapittaja</i>	13	43.33
<i>Vatakaphaja</i>	07	23.33
<i>Kaphapittaja</i>	10	33.33

Table 3: Symptoms and signs according to the number of patients (n = 30)

Symptoms	No. of patients	Percentage
<i>Vibandha</i>	25	83.33
<i>Raktasrava</i>	27	90.00
<i>Aruchi</i>	20	66.66
<i>Vedana</i>	17	56.66
<i>Gudadaha</i>	22	73.33
<i>Pichchhila Srava</i>	19	63.33
<i>Gudakandu</i>	18	60.00
<i>Arsha bhrinsha</i>	4	13.33

Table 4: Base of pile masses (n = 70)

Base	No. of patients	Percentage
<i>Mahamulani</i>	43	61.42
<i>Tanuni</i>	27	38.57

Table 5: Degree of pile masses (n = 70)

Degree	No. of piles masses	Percentage
1 st degree	23	32.85
2 nd degree	36	51.42
3 rd degree	11	15.71

Table 6: Clockwise position of pile masses (n = 70)

Position	No. of piles masses	Percentage
3 o'clock	23	32.85
7 o'clock	34	48.57
11 o'clock	13	18.57

Table 7: Percentage of relief

% of relief	Effect	No. of patients	Percentage
≥ 76	Cured	00	00
51–75	Markedly improved	17	56.66
26–50	Improved	8	26.66
<25	Not improved	5	16.66

Table 8: Effect on symptoms of Arsha

Symptoms	Mean		IMP %	SD (±)	SE (±)	t value	P value
	BT	AT					
Raktasrava	03	0.46	84.33	0.63	0.16	15.33	<0.001
Vedana	03	0.46	84.33	0.63	0.16	15.33	<0.001
Gudadaha	03	0.53	82.00	0.74	0.19	12.85	<0.001
Picchila Srava	03	0.73	75.33	0.79	0.20	10.98	<0.001
Gudakandu	03	0.66	77.66	0.61	0.15	14.64	<0.001
Arshabhransha	03	0.73	73.33	0.79	0.20	10.98	<0.001

BT: Before treatment; AT: After Treatment; IMP: Improvement

proven by the concept of *koshtha* and total 53.33% patients were found with *mrudu koshta* which was also possible due to the weakness of *agnibala*. Family history of *Arsha* was found in 56.66% of patients, which was another important hereditary causative factor.

Symptoms of *Arsha* like bleeding per rectum, *gudadaha*, *gudasrava*, *gudakandu*, etc., subsided by treatment with *Ksharapatan* (local application of *Pratisaraniya Kshara* on *Arsha*) satisfactorily. *Kshara* has properties of mainly *chhedan*, *bhedhan* and *lekhan*,^[13] and by virtue of these properties, *kshara* produced shrinking effect on pile masses. *Gudadaha* also subsided. *Daha* is caused due to vitiation of *Pitta* and *Rakta dosha* having *Amla*(acidic) property, which gets neutralized by *Lavana anurasa* of *Kshara*.^[14]

Statistical analysis also proves that *apamarga ksharapatan* has a significant effect in 1st degree and 2nd degree of piles, whereas insignificant result was obtained in 3rd degree piles.

Conclusion

It can be concluded that the pile masses shrunk out with *Apamarga Ksharapatan*, without complete disappearance of pile masses. Hence, it could be stated that *Apamarga ksharapatan* was an effective method for the treatment of 1st and 2nd degree piles. The important notable point was that there were no side effects or adverse effects shown after the treatment.

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हिंदी सारांश

“अर्श मे क्षारपातन विधि का एक प्रभावात्मक अध्ययन”

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इस शोधप्रबंध का उद्देश अर्श मे क्षारपातन की भूमिका स्थापित करना था। इसके अतिरिक्त एक ऐसी चिकीत्सा विधि स्थापित करना जो एक प्रभावकारी आयुर्वेदिक चिकीत्सा विधि होने के साथ साथ आर्थिक दृष्टि से भी उपयुक्त दुष्प्रभाव रहित हो। शास्त्रों मे अर्श चिकीत्सा मे वर्णित उन चार विभिन्न विधियों मे से क्षारकर्म चिकीत्सा विधि अधिक उपयोगी बताया है। इस अध्ययनमें प्रतिसारणीय क्षार का उपयोग किया गया है, जिसें एक उत्तम क्षारों में गिना जाता है। इस क्षार का सभी रोगियों के अर्शों में स्थानिक रूपसे प्रयोगकर अध्ययन किया गया है। इस अध्ययनमें ३० अर्शोंसे पीडीत रोगीयोंको अपामार्ग क्षारपातन विधि द्वारा चिकीत्सा की गयी है। क्षार का निर्माण यथोक्त शास्त्रीय विधि द्वारा किया गया है। अध्ययन का आधार अर्श रोगीयों मे लक्षण स्वरूप पाये जानेवाले गुदगत रक्तस्राव, वेदना, कंडू, भ्रंश को बनाया गया है। क्षारपातनोपरांत प्रथम एवं द्वितीय डीग्री अर्श रोगीयोंमे उत्साहर्धक परिणाम मिले है। संपूर्ण अध्ययन चार भागोंमे बांटकर किया गया है अर्थात सैद्धांतिक अध्ययन, औषधिय अध्ययन, क्षारपातन प्रयोगविधि एवं उनसे प्राप्त परिणामों का अध्ययन और अंतमे विस्तृत विवेचना का अध्ययन। निष्कर्ष स्वरूप यह पाया गया की प्रथम एवं द्वितीय डीग्री अर्शोंमे अपामार्ग क्षारपातन अत्यंत उपयोगी एवं लाभप्रद है।