Research Article

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A CLINICAL STUDY OF INTRALESIONAL INJECTION OF APAMARGA KSHARA IN MANAGEMENT OF CHARMAKEELA

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ABSTRACT

Background: Charmakeela is a disease, existing over the ages causing trouble to people. Charmakeela is considered to be a Kshudra roga, caused due to aggravated Vyana Vayu along with Kapha, giving rise to nail-like growth over the Twak (skin). Charmakeela roga can be correlated to Warts by description. Objectives: Clinical evaluation of Effect of Intralesional Injection of Apamarga Kshara in Charmakeela. Method: 30 diagnosed cases of Charmakeela were selected for the study based on inclusion criteria and performed according to proforma designed, in SDM College of Ayurveda, Hospital & Research Centre, Kuthpady, Udupi. In the study, intervention was made on single sitting and observation were carried out for 15 days. Drug: Apamarga Teekshna Pratisaraniya Kshara was prepared according to classical method in the Rasashastra Practical Hall, SDM College of Ayurveda, Hospital & Research Centre, Kuthpady, Udupi. Follow up: on 30th day, after intervention. Result: The study showed effective cure i.e. wart had shed off by 15th day, promising cosmetic result with no recurrence and overcoming existing treatment lacunas. Statistical results showed highly significant. Conclusion: Study showed that Intralesional Injection of Apamarga Kshara is effective in management of Charmakeela.

Keywords: Apamarga Kshara, Charmakeela, Intralesional Injection, Curative, Cosmetic value.

INTRODUCTION

Charmakeela a disease described as a Kshudra Roga by Acharaya Sushruta. Explained as a growth over the skin like a keela (nail), which is immovable in nature. Mentions 3 varieties of it, based on doshic predominance.[1] The treatment being said as, Chedhana (excision) of the lesion by Shastra followed by either Agnikarma or Ksharakarma.[2] In modern science it can be correlated to Warts. Warts are benign proliferations of skin and mucosa caused by Human Papilloma Virus. Viruses do not produce any acute signs or symptoms but induce a very slow, focal expansion which may persist for months or even years. Thus, it leads to discomfort and also hindering the confidence. It's of 2 types, Cutaneous and Mucocutaneous. Cutaneous is further classified into subtypes.[3] The treatment in modern science is application of corrosive, caustics and Keratolytic agents. The persisting treatment over both streams have lacunas such as prolonged duration of treatment, high cost, high recurrence rate, low cosmetic value, side effects, etc. Clinical studies on warts using different Intralesional Injection of Kshara have given an effective response.[4,5] An animal study of Apamarga Kshara injection was conducted at different dose levels and the authors have concluded that the formulations are safe.[6]

MATERIALS AND METHOD

Study Design: An Open Random Clinical Trial.

Sample and Sample Size: 30 patients fulfilling the Inclusion criteria were selected for the study.

Inclusion Criteria

1. Patients between age group of 18 -70 years.
2. Cutaneous warts over face, neck region, axilla, hand and feet.
3. Single Warts with less than or equal to 1cm in size (length, diameter).

Exclusion Criteria

1. Patients contraindicated for Ksharakarma as per texts.
2. Anal Warts
3. Genital warts
4. Mucocutaneous Warts
5. Patients with Systemic disease like uncontrolled Diabetes, Hypertension, Cardiac disorders.
6. Immune compromised and Sexually Transmitted Disease.
7. Warts greater than 1cm in size (length, diameter).

Drug Review

The Apamarga Teekshna Pratisaraniya Kshara was prepared according to classics, in Rasashastra Practical Hall, SDM College of Ayurveda, Hospital & Research Centre, Kuthpady, Udupi, Karnataka, India.

Table 1: **Preparation of Apamarga Pratisaraniya Teekshna Kshara**

Attribute	Observation
Raw drug - Apamarga panchanga	10 kg
Ash obtained	1 kg (2 L)
Water added	12 L
Kshara Solution (After 21 times filtration)	11.400 L
Shukti added	100g
Chitraka powder added	10g

Final Kshara obtained	234g

Intervention

The study was carried out as per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.

Depending on the site of wart, patients were placed in a convenient position. The site was painted with spirit and draped with a hole towel. Apamarga Kshara 2.5g was diluted with 10ml of distilled water and drawn into a disposable insulin syringe. Then it was slowly injected into the base of the Wart, dose depending on the size of the Wart.

Table 2: Dose and Wart Size

Dose	Size of Wart
0.2cc	≤ 0.5cm
0.4cc	≥ 0.6cm- 1cm

Table 3: Dilution Ratio

Kshara	Distil Water
1	4
2.5g	10ml

Study Duration: The intervention was carried out in a single sitting and observation was done for 15 days or till the wart Shed off.

Assessment Criteria

The study was assessed based on 2 parameters i.e. pain as subjective parameter, assessed using VAS and objective parameter as size of wart, assessed with Physicians Wart Assessment.[7]

Physicians Wart Assessment

Grade	Description
0	Clear: No visible wart. No further treatment is indicated
1	Near Clear: A visible wart that is less than 3mm in maximal diameter (or length)
2	A visible wart ≥ 3mm and < 6mm in maximal diameter (or length)
3	A visible wart ≥6mm in maximal diameter (or length)

Observation Parameter

The observation parameters were assessed before treatment and after treatment on 1st, 3rd, 6th 9th, 12th and 15th day/ till lesion shed off. Parameters such as burning sensation, itching, discharge and color were assessed based on the grading.

Table 4: Observation Parameter Grading

Points	Burning sensation	Itching	Discharge	Color
0	No burning sensation	No itching	No discharge	No change
1	Mild burning	Mild itching	Serous discharge	Reddish
2	Moderate burning	Moderate itching	Sero-purulent	Light brown/dark brown
3	Severe burning	Severe Itching	Purulent	Surrounding skin

Follow-Up

On the 30th day of intervention, observed for recurrence of wart, appearance of normal skin texture and sensation, scar mark or for any adverse effects.

RESULTS

Regression in size was considered as an assessment parameter for the effectiveness of study and thereby complete shed-off the Wart. The regression in size was noted by day 3 of the study. The reduction was recorded according to the grading scale adopted. Complete regression of wart was noted by day 6 to day15. Statistically, the study was said to be effective with the Mean value -4.893 and p value 0.000, stating the study to be highly significant.

Table 5: Result on Size Reduction

Parameter	Mean BT	Mean AT	Z Value	P Value	Interpretation
Size	2.3000	0.0000	-4.893	0.000	HS

* BT- Before Treatment, AT – After Treatment (Day 15), HS- Highly Significant

Case 1: Filiform wart over left side of neck region

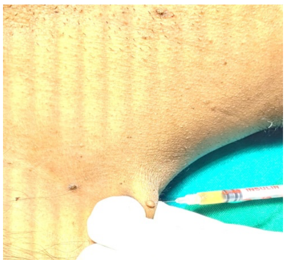

Figure 1: Injecting Apamarga Kshara into wart base

Figure 2: Immediately after injection

Figure 3: Wart had shed-off on 9th day

Case 2: Common wart over left thumb

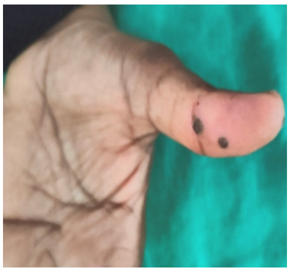

Figure 4: Before treatment

Figure 5: After Treatment

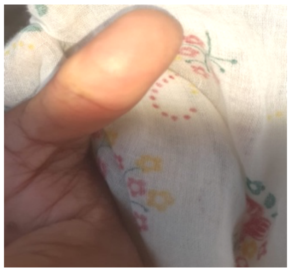

Figure 6: Wart had shed-off on 15th day

Case 3: Mosaic wart over right ring finger

Figure 7: Before Treatment Common wart at finger

Figure 8: Before Treatment Common wart at finger

Figure 9: After Treatment Regression in Size

Figure 10: Wart had shed-off on 15th day

DISCUSSION

Charmakeela is a Kaphavata pradhana roga, chikista being said as chedana by Shastra followed by either Agnikarma or Ksharakarma. Ksharakarma does the chedhana action[8] hence, chedana by shastra is spared off as it is incorporated in Kshara Karma. The Apamrga[9] Kshara was selected due to its indications such as Arshoghna, Kustapaha, Kaphavataghna, also due to easy availability of the drug and its cost effectiveness. The Tridosaghna property of Kshara and Kaphavatghna property of Apamarga alleviates the vitiated dosha in Charmakeela. The guna's (properties) of kshara[10] such as ksharana, chedana (excisional), lekhana (scrapping), vilayana (liquefying) acts on raoukshya (rough), sthira granti (immobile growth) of Charmakeela. The Krimighna guna of both Kshara and Apamarga and Shodhana guna of Kshara acts as Virucidal. The Ropana (healing) guna of Kshara, heals the internal Vrana caused due to Kshara by Dahana (caustic) property. The presence of proteolytic enzyme leads to denaturizing of virus proteins; thereby further leading to sclerosing and necrosis of the infective tissue which causes sterile inflammation, observed as redness and mild edema over the site after the intervention in initial days. The migration of lymphocytes attacks Keratinocytes, inducing degenerative changes in epidermis leading to regression of wart. Followed by the epithelial healing and regeneration of the tissue damaged. In the topical application of Kshara, due to resistance provided by Stratum Corneum layer of skin causes prevention or delay drug penetration to deeper layer and minimum drug amount is penetrated to the affected site, whereas in the Intralesional Injection method, the required drug dose reaches directly to the affected layer. Thereby drug acts faster when compared to local application. Hence the shed-off was early.

CONCLUSION

The wart shed off took place within 3-15 day, with promising cosmetic result, no recurrence and also overcoming the drawbacks of classical method such as multiple sitting and management of external Vrana. The Study was effective as both clinically and statistically.

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