

## A CLINICAL STUDY TO EVALUATE EFFICACY OF APAMARG KSHARA & DHATAKYADI TAILA PICHU IN THE MANAGEMENT OF KARNINI YONIVYAPADA W.S.R.TO CERVICAL EROSION

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### ABSTRACT

The health of nation mainly depends on the health of woman because the healthy and happy woman lays the first step of a prosperous nation. Diseases disturb the life of woman and are frequently of an extremely distressing character. Certain diseases may not be life threatening but are troublesome and irritating to an individual in day to day routine activity. One of the most common diseases of this type is *KarniniYonivyapada*. On the basis of etiopathogenesis, clinical features, complications and principles of treatment; *KarniniYonivyapada* is similar to cervical erosion. It is the replacement of the stratified squamous epithelium of the portio-vaginalis by the columnar epithelium of endocervix. It is a benign condition but if left untreated may lead up to infertility and predisposes cervical malignancy. Looking into the pathogenesis of the '*KarniniYonivyapada*' it is a disease in which vitiated *Dosha* are *Vata* and *Kapha* while affected *Dhatu* is *Rakta*. Treatment is aimed at *Vata-Kaphashamaka* and *Raktashodhaka*. The treatment of Cervical Erosion is designed to destruct the columnar epithelium and to promote the re-epithelization of the squamous tissues. So in present trial, *ApamargKshara* and *DhatakyadiTailaPichu* were applied locally on the eroded area.

**Keywords:** Cervical Erosion, *KarniniYonivyapada*, *ApamargKshara*, *DhatakyadiTaila*.

### INTRODUCTION

The health of nation mainly depends on the health of woman because the healthy and happy woman lays the first step of a prosperous nation. Diseases disturb the life of woman and are frequently of an extremely distressing character. Certain diseases may not be life threatening but are troublesome and irritating to an individual in day to day routine activity. One of the most com-

mon diseases of this type is *KarniniYonivyapada*. *Acharya Charaka* says that *KarniniYonivyapada* is caused due vitiation of *Kapha* and *Vata* while *Acharya Sushruta* said it is due to vitiation of *Kapha*.

This condition can be correlated with cervical erosion. In cervical erosion though small sprouts like structures do grow, but there is no round protuberance, if it is ac-

cepted that cervix itself becomes rounded, protuberant due to congestion, hypertrophy and nabothian cysts and assumes the shape of pericarp of lotus or *Karnika* then congruence with classical description can be established. Although the cardinal symptom of cervical erosion is excessive vaginal discharge, but often the long term sequel of the disease like dyspareunia, abdominal pain, low backache, sickness feeling, fatigue etc. become too much troublesome to the patients.

**NEED OF STUDY:** There is found to be relationship between squamous metaplasia and induction of squamous cell carcinoma of the cervix. Pre-cancerous lesions often develop at the squamocolumnar junction. Hence theoretically, treating cervical erosion may prove to be protective against the incidence of cervical carcinoma.

Some sexually transmitted microorganisms such as *Chlamydia trachomatis* and *Neisseria gonorrhoea* preferentially infect glandular epithelium. Thus erosion would, by exposing this epithelium, aid an infective process. That's why it is important to detect these lesions early enough and treat them adequately if cancer of the cervix is to be warded off.

#### **AIMS AND OBJECTIVE:**

1. To study the detailed aetiopathogenesis of *KarniniYonivyapada* with special reference to Cervical Erosion.
2. To evaluate the efficacy of *ApamargKshara* and *DhatakyadiTailaPichu* in the management of Cervical Erosion (*KarniniYonivyapada*).

#### **MATERIAL AND METHODS**

**Study design-**Randomized control trial, Open trial, on a single centre.

#### **Selection of cases**

Total 20 clinically diagnosed and confirmed cases of cervical erosion were selected from the O.P.D. / I.P.D. N.I.A. Hospital, Jaipur after taking informed consent.

#### ➤ **Inclusion criteria**

- Married women
- Age in between 18 to 45 years
- Clinically diagnosed and confirmed patient by per speculum examination and having sign & symptoms of cervical erosion
- Patient willing to go through trial.

#### ➤ **Exclusion criteria**

- Women of age less than 18 and above the age of 45 years.
- Pregnant women
- Women in Bleeding phase.
- Patient having coagulation disorders.
- Patient having systemic disease such as Diabetes mellitus, tuberculosis etc.
- Patient having Displacement of uterus.
- Patient having organic pathology of uterus and adnexae like Cervical carcinoma, any malignant growth
- HIV, VDRL, HBSAg positive patients.
- Patient using I.U.C.D.
- Patient will be taken into inclusion criteria after removal of I.U.C.D.

#### ➤ **Criteria for withdrawal**

Patient who discontinued the treatment themselves due to any reason or did not returned for the final follow up.

**Investigation-** Hb gm%, TLC, DLC, ESR, HIV, HBsAg, VDRL, MT and Pap's smear for cervical cytology were advised to patients before and Hb gm%, ESR and vaginal pH before and after the completion of trial.

- ❖ **Assessment Criteria-** A special scoring pattern was applied in symptoms and associated complaints

- ❖ **Statistical analysis** - Statistical study was carried out in terms of mean (x) standard deviation (S.D), standard error (S.E.) paired test(t. value) using Graph Pad Instat Software. Finally result were shown in terms of probability (P) as  $p > 0.05$ -Not Significant,  $p < 0.05$ -Significant,  $p < 0.01$ -Highly significant

**Table No.1: Shows the pattern of clinical recovery in various ‘Subjective Parameters’ in 20 patients treated with ApamargKshara&Dhatakyadi Tail Pichu**

S No	Symptoms	Mean		Dif.	% of Change	SD	SE	W	P	Result
		BT	AT							
1.	Vaginal discharge	2.25	0.70	1.55	68.88%	0.83	0.18	171	<0.01	H.S.
2.	Dyspareunia	1.00	0.45	0.55	55%	0.60	0.14	55	<0.01	H.S.
3.	Pruritus Vulvae	0.65	0.20	0.45	69.23%	0.60	0.14	36	<0.01	H.S.
4.	Low Backache	2.05	1.25	0.80	39.02%	0.62	0.14	105	<0.01	H.S.
5.	Lower Abdominal pain	1.30	0.65	0.65	50%	0.81	0.18	55	<0.01	H.S.
6.	Burning Micturition	0.50	0.10	0.40	80%	0.60	0.13	28	<0.05	S.
7.	Sickness Feeling	1.50	0.95	0.55	36.67%	0.83	0.18	28	<0.05	S.
8.	Post Coital Bleeding	0.40	0.10	0.30	75%	0.66	0.15	10	>0.05	N.S.

**W= Wilcoxon matched-pairs signed-ranks test**

**H.S. = Highly Significant S. = Significant N.S. = Non Significant**

**Table No. 2: Shows clinical recovery in various ‘Objective Parameters’ in 20 patients treated with ApamargKshara&Dhatakyadi Tail pichu**

S No	Symptoms	Mean		Dif.	% of Change	SD	SE	W	P	Results
		BT	AT							
1.	Vaginal discharge P/S	1.90	0.45	1.45	76.32%	0.60	0.14	210	<0.01	H.S.
2.	Oozing of blood from erosion	1.35	0.50	0.85	62.96%	0.75	0.17	91	<0.01	H.S.
3.	Area of eroded cervix	1.95	0.50	1.45	74.36%	0.60	0.14	210	<0.01	H.S.
4.	Cervical Tenderness	0.40	0.05	0.35	87.5%	0.49	0.11	28	<0.05	S.

5.	Nabothiancyst	0.30	0.20	0.10	33.34%	0.31	0.07	3	>0.05	N.S.
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W= Wilcoxon matched-pairs signed-ranks test

H.S. = Highly Significant S. = Significant N.S. = Non Significant

**Table No 3: Showing clinical recovery in various ‘Laboratory Investigation’ of Cervical Erosion in 20 patients treated with ApamargKshara and Dhatakyadi Tail Pichu**

S No	Symptoms	Mean		Dif.	% of Change	SD	SE	t	P	Results
		BT	AT							
1.	Vaginal pH	6.55	5.33	1.25	19.08	0.55	0.12	10.16	< 0.0001	H.S.
2.	Hbgm%	11.32	11.40	0.075	0.66%	1.11	0.25	0.3016	>0.05	N.S.
3.	ESR	18.20	17.05	1.150	6.31%	12.18	2.72	0.4223	>0.05	N.S.

t = Paired ‘t’ test

H.S. = highly significant

N.S. = Non significant

**Table No. 4: Shows the % improvement of signs and symptoms**

CARDINAL SYMPTOMS	% Improvement
Vaginal discharge	68.88%
Dyspareunia	55%
Pruritus Vulvae	69.23%
Low Backache	39.02%
Lower Abdominal pain	50%
Burning Micturation	80%
Sickness Feeling	36.67%
Post coital Bleeding	75%
Vaginal discharge by P/S	76.32%
Oozing of blood from cervical erosion	62.96%
Area of eroded cervix	74.36%
Cervical Tenderness	87.5%
Nabothian cyst	33.34%
<b>Average Percentage of Relief</b>	<b>47.32%</b>

**Table No. 5: Overall Effect Of Therapy**

S.No.	Effect of therapy	Result	No. of patients	%
1	No relief	0%	0	0%
2	Mild relief	25%	01	5%
3	Moderate Relief	26-50%	05	25%
4	Significant relief	51-75%	10	50%

5	Excellent Relief	76-100%	04	20%
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## DISCUSSION

### Probable mode of action of Kshara

There are two basic principles given by Acharyas for the treatment of Karnini which are:

#### ❖ KaphaharaChikitsa<sup>1</sup>

From the treatment point of view i.e. KaphaharaChikitsa, Kshara has property of Kaphaghna due to its UsnaVirya, KatuVipak, Katu Rasa And Laghu, TikshnaGuna. Due to Pachana, Vilayan, Kapha-VataShamakaKarma, Ksharais responsible for SampraptiVighatana of KarniniYonivyapada as vitiation of vataKaphadosha are responsible for this disease.

#### ❖ ShodhnaDravya<sup>2</sup>

Ksharais mentioned to have Shodhanproperty. It is able to remove Mala from body to fulfill the definition of ShodhnaDravya.

#### Chemical analysis of ApamargKshara<sup>3</sup>:

The ApamargaKshara was found strongly alkaline in reaction (pH = 10.44) and hygroscopic. The result of this study were pH = 10.44, acid radicals as  $\text{CO}_3^{--}$ ,  $\text{SO}_4^{--}$ ,  $\text{Cl}^-$ , phosphate as  $\text{P}_2\text{O}_5$  and basic radicals  $\text{Ca}^{++}$ ,  $\text{Mg}^{++}$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Fe}^{+++}$  etc.

Strong alkaline nature of Kshara was responsible for the corrosive action i.e. destruction (slough off) of columnar epithelium, after destruction of this epithelium re-epithelisation of squamous epithelium occurred easily.

#### Probable mode of action of Dhatakyadi-taila:

Once the columnar epithelium is replaced, the secretory activity of glands subsides which decrease the vaginal discharge and thus vaginal pH is also reduced which fa-

vorssquamous metaplasia. There are some research works also done to prove the pharmacological activity of contents of DhatakyadiTaila<sup>4</sup>. Various clinical and experimental studies reveal that Anti-inflammatory, Anticytotoxic and Antimicrobial activities were present in almost 80-90% of drugs of DhatakyadiTaila. Anti-inflammatory, Anticytotoxic effect of most of the ingredients in the drug help in proper healing and decrease the swelling and the redness of the cervix. Antibacterial, Antifungal, Antiseptic properties of the ingredients may help in preventing the foreign organisms which prevent the regeneration of the squamous epithelium.

#### SUBJECTIVE PARAMETERS:

**1. Amount of Vaginal discharge:** It was significantly reduced because Apamarghas Vata and KaphanashakaGuna.

**2. Dyspareunia:** It may be concluded that anti-inflammatory and analgesic property of Apamarghelped in improvement in dyspareunia.

**3. Pruritis Vulvae:** Anti-microbial<sup>5</sup> and antifungal property<sup>6</sup> of Apamarg help in improvement of this symptom.

**4. Low Backache:** Improvement may be probably due to virtue of Ushna, Tikshna-Guna of Kshara and VataShamakaGuna of Apamarg. Analgesic activities present in DhatakyadiTaila gives considerable relief in lower backache. Also because of the anti-inflammatory property<sup>7</sup> of the drug, congestion in the nearbyorgans is reduced and so the back pain is also relieved.

**5. Lower Abdominal pain:** Apamarg Kshara known to be alleviating diseases like-Gulma, Shoola<sup>8</sup> which caused relief in lower abdominal pain also.

**6. Burning micturation:** *ApamargKshara* is said to cure *Shwasa* which is a “*Pitta SthanaSmudbhavVyadhi*”. So, *Apamrg* can be concluded to cure *Pittadushti* causing burning micturition.

**7. Sickness feeling:** This is due to combined effect of *Kshara* and *DhatakyadiTaila* that decreased amount of vaginal discharge which is also responsible for generalized body weakness i.e. sickness feeling.

**8. Post Coital Bleeding:** Improvement in patients was found that as *Apamarg* has significant result in wound healing by effecting Wound Contraction, Epithelization Time, Histology And Total DNA Content. So by increasing tensile strength of cervical epithelium *Apamarg* assumed to have better result in wound healing<sup>9</sup>

#### OBJECTIVE PARAMETERS

**1. Amount of Vaginal discharge P/S:** The vaginal discharge minimize due to decreased hyper secretion of cervical glands after the healing of erosion. *ApamargKshara* is regarded as *Tikshna* which helps in destructing secretory columnar epithelium.

**2. Oozing blood from erosion on rubbing with gauze piece:** Improvement was seen as wound healing property of *Apamarg*.

**3. Area of eroded cervix:** Healing of cervical erosion is measured by destruction of columnar epithelium which is good in case of *ApamargKshara* due to its *TikshnaGuna*.

**4. Cervical Tenderness:** *ApamargKshara* have *Shoolnashan* property which helps in cure of cervical tenderness.

**5. NabothianCyst:** As the symptom present was present in only four patients, that's why the improvement can't be called significant.

#### CHANGES IN LABORATORY INVESTIGATION

##### 1. Haematological Investigations:

Hb%&ESR:No significant change was found in patients.

##### 2. Vaginal pH:

This is because *DhatakyadiTailaPichu* which being used with *ApamargKshara*, it normalize the activity of the glands of cervix by its own virtue of *Yonivishodana*.

#### CONCLUSION

- ❖ The disease *KarniniYonivyapada* described in Ayurveda classics can be considered as the clinical congruence of cervical erosion.
- ❖ *BahirparimarjanaChikitsa* in the form of *ApamargKshara* and *DhatakyadiTailaPichu* is highly effective in disintegration of the pathogenesis of the disease.
- ❖ *ApamargKshara* and *DhatakyadiTailaPichu* is effective in removing of *karnika* (nabothian follicles) and managing the associated chronic cervicitis.
- ❖ There was not increased vaginal discharge found after application of *Kshara* which is the commonest side effect of cauterization. No adverse effect or complications is produced with the use of this treatment.

#### REFERENCES

1. CharakaSamhita,Comm. ShriSatyanarayanShastri with vidyotinihindi commentary by Pt. KashinathShastri & Dr. Gorakhnath Chaturvedi , Published by Chaukhamba Bharti Academy, Varanasi, pp-841
2. SushrutaSamhita of Mahrshi Sushruta edited with Ayurveda-Tattva-Sandipika Hindi Commentary, scientific analysis, notes etc. by Kaviraja Ambikadutta Shastri, Reprint edition,2006, Vol.II publisher: Chaukhambha Bharti Academy, Varansi, pp-156
3. Oasis Test House limited an 'ISO 9001'

certified lab Jaipur ,Dr. Gupta Pragya (2012) Clinical Evaluation of the Efficacy of *Ksharaa Karma* with *ApamargaKsharaa* and *JatyadiTailaPichu* in the management of Cervical Erosion (*KarniniYonovyapad*), P.G. Dept. of Prasuti-Stree Roga, N.I.A.,

4. **1. Dhataki:** Dhataki flowers found to have antibacterial activity Parekh, Jigna and Chanda, Sumitra. *In vitro* antibacterial activity of the crude methanol extract of *Woodfordiafruticosa* Kurz. Flower (Lythraceae). *Braz. J. Microbiol.* [Online]. 2007, vol.38, n.2, pp. 204-207.ISSN 1517-8382. **2. Amalaki:** Emblica fruit found to have very potent anti bacterial activity (Vinayagamorthy, 1982) and the water fraction of the methanol extract of leaves was effective in rat paw inflammation (Summanen et al.,1990) **3. Madhuka:** The anti-inflammatory activity of glycyrrhetic acid and its diacetate was similar to that of hydrocortisone in albino rats (Tangari et al.,1964) **4. Utpala:** The extract of defatted fruits of *Nymphaestellata* has a significant analgesic activity. (Singh et al., 1977) **5. Jambu:** The anti-inflammatory activities are reported. (Mahapatra et al., 1986) **Lodhra:** It is proved very effective in the management of kaphajyonivyapad (leucorroea) in aclinical study (Jain T.1989) **7. Katphala:** The extract of stem bark showed analgesic action in rats by tail flickering method. (Gupta et al., 1982) **8. Dadima:** Antibacterial ac-

tivity of fixed oil from seeds and stem bark extract is reported. (Chopra et al., 1960 &Trivedi and Kazmi, 1979) Antifungal activity of the extracts of bark, fruits, pulp, flowers and leaves is reported. (Charya et al., 1979)

5. Saravanan, P, Ramasamy V and Shiva-kumar T. Antimicrobial activity of leaf extracts of *Achyranthesaspera* L. *Asian J. Chemi.* 20(1): 823-825 (2008).
6. Ramesh Londonkar, Chinnappa Reddy V and Abhay Kumar K. potential antibacterial and antifungal activity of *Achyranthesaspera* l. *Recent Research in Science and Technology* 3(4): 53-57 (2011).
7. Vijayakumar S, Sankar P and Varatharajan .Anti inflammatory activity of roots of *Achyranthesaspera*.*Pharma Biol.* 47(10): 973-975 (2009).
8. Sharma Sadanand; *Rastrangini*, MotilalBanarsi Das, Varanasi, Edition 2004, pp-338
9. Fikru A, Makonnen E, Eguale T, Debelala A, Mekonnen GA. Evaluation of *In vivo* wound healing activity of methanol extract of *Achyranthesaspera*L. *J Ethnopharmacol* 2012; 143(2):469-74.

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