



Research Article

CLINICAL STUDY TO EVALUATE THE EFFICACY OF AGNIKARMA IN KARNINI WITH SPECIAL REFERENCE TO CERVICAL EROSION

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ABSTRACT

Women's health is extremely valuable and source of healthy nation. There are so many diseases that affects quality of life of women; cervical erosion is one among them. On the basis of etiopathogenesis, clinical features, complications and principles of treatment; *Karnini Yonivyapad* is very near to cervical erosion. '*Karnini Yonivyapada*' is a disease caused by vitiation of *Vata and Kapha dosha* while affected *dhatu* is *Rakta*. Treatment is aimed at *Vata-Kaphashamaka* and *Raktashodhaka*. In cervical erosion, there is replacement of squamous epithelium of ectocervix by columnar epithelium of endo cervical canal. Although it is a benign condition but ignorance of this disease may lead to infertility and cervical malignancy. The treatment of cervical erosion is designed to destruct the columnar epithelium and to promote the re-epithelization of the squamous tissues. Electric cauterization and laser are the standard treatment modalities of erosion in modern medical science which are the modified form of *Agnikarma* but so many side effect associated with them. In the present study, the management of cervical erosion was done through *Agnikarma* by *Jamabbadan shalaka* and found as better alternative in the management of *Karnini* (Cervical erosion).

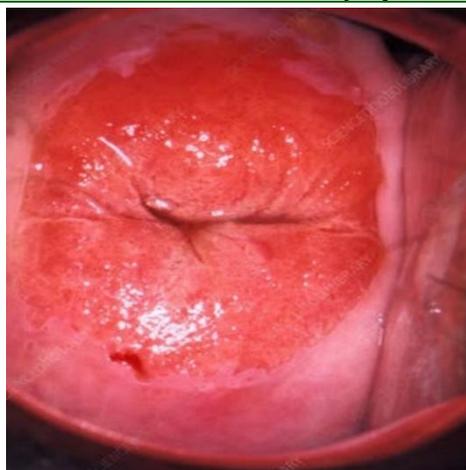
KEYWORDS: Cervical Erosion, *Karnini Yonivyapada*, *Agnikarma*.

INTRODUCTION

Women's health is extremely valuable and source of healthy nation. There are so many diseases that affects quality of life of women; cervical erosion is one among them. In cervical erosion, there is replacement of squamous epithelium of ecto cervix by columnar epithelium of endo cervical canal. This disease may not be life threatening but may be troublesome and irritating to the individual in her routine activity. Moreover when this condition is neglected, may lead to serious complications or turn into major life threatening condition. This is a common gynecological disease and seen in about 85% of women^[1].

In *Ayurveda* classics almost all of the gynecological disorders are described under the heading of *Yonivyapad* which are twenty in numbers^[2]. *Karnini Yonivyapad* is one among them, the description of which seems to be near to cervical erosion. According to *Acharya Charaka*, due to straining during labor in the absence of labor pains, the *Vayu* gets obstructed by fetus with holding *kapha* and getting mixed with *Rakta* produces *Karnika* in

Yoni, which obstruct the passage of *Rakta (raja)*. Due to presence of *Karnika* this condition is termed as *Karnini*^[3]. *Acharya Susruta* says that vitiated *Kapha* along with *Rakta* produces *Karnika* in *Yoni*. Other features of vitiation of *Kapha* i.e., unctuousness and itching etc. are also present.^[4] After indulging into specific diet and life-style *Vata (Apanavayu)* gets vitiated and there by *Kha-vaigunya* takes place in the *Artavahastrotas*. The same vitiated *Vata* gets mixed with *Kapha dosha* and *Raktadhatu* and *Dosha dushyasammurchana* takes place. *Adhithana* of disease is the *Garbhashaya dvaramukha* i.e., cervix. In the stage of *Vyaktaavashta*, *Karnika* is formed in the *Garbhashayadvaramukha*, which is the cardinal symptom of *Karnini yonivyapada*. *Karnika* is mentioned as *Granthi*^[5] *Mansakandi*^[6], *Mansankur*^[7], *Mansakandar Granthi*^[8]. Incidence in females, restriction to genital tract, presentation of unique symptoms, more than anything identical appearance of the lesion with elevation impressively resemblance of cervical erosion with *Karnini yonivyapad*.



Nowadays *Agnikarma* is practiced by the modern physician in same or other form like cauterization, Laser etc., which are nothing but only the modified form of *Agnikarma*. They have their own side effect like in cervical erosion excessive vaginal discharge, secondary infertility, bleeding per vagina, infection, stenosis etc. are the side effects of electric cautery. This may further destroy the healthy tissues, therefore we can rely upon Ayurveda management incorporating *Agnikarma* by *Shalaka* which is comparatively much safer because in *Agnikarma*, instead of destruction of tissue, scrapping of unhealthy tissue done and hence chances of cervical stenosis etc. is almost nil.

Need of the Study

Cervical erosion is a common condition seen in most woman of all the age groups. Its prevalence is between 50-85% of all the gynecological conditions.^[9] Cervical erosion is the commonest cause of white discharge and bleeding per vagina after coitus. This leads to psychological problem in the female and also affects her health, and hence it is a major problem in front of gynecologists. Since long time specific therapies like diathermy cautery, cryosurgery are advised and some topical applications also available in the existing modern system of medicine. But none of these therapies are satisfactory in curing the cervical erosion and are occasionally causing side effects like excessive vaginal discharges. It is a benign condition but if left untreated may leads up to infertility and predisposes to cervical malignancy. That's why it is important to pay attention toward this troublesome disease and to detect these lesions early enough and treat them adequately. This disease often associated with cervicitis and viral infection. When these condition are present together they will show oncogenic potency^[10]. Hence it is highly essential to develop an accurate therapy for erosion in the present circumstances.

Materials and Methods

Clinical study

Total 15 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: Clinically diagnosed patients of cervical erosion (*Karnini*) on per speculum examination, irrespective of symptoms.

- ❖ Married women irrespective of parity.
- ❖ Age between 20 to 45 years.

Exclusion Criteria: Pregnant women having cervical erosion

- ❖ Women of age less than 20 and more than 45 years
- ❖ Positive patients of Human Immunodeficiency Virus, VDRL and HBs Ag
- ❖ Patients with Intra Uterine Contraceptive Device insertion or on Oral contraceptive pills.
- ❖ Any organic pathology of reproductive tract like endometrial cancer, cervical cancer, cervical intraepithelial neoplasia.
- ❖ Patient having severe systemic disorders like Diabetes, Hypertension, Tuberculosis etc.
- ❖ Patients with Menorrhagia, Metrorrhagia and Polymenorrhoea.

Withdrawal Criteria

1. If any serious condition develops during the course of trial which requires urgent treatment.
2. Patients herself wants to withdraw from the clinical trial
3. 100 percent non-compliance
4. Patient who do not come to regular follow up.

Laboratory Investigations

Before treatment

1. Complete Blood Count-Erythrocyte Sedimentation Rate, Random Blood Sugar, Bleeding Time, Clotting Time, Liver Function Test (Serum Bilirubin, Serum Alkaline Phosphatase, SGOT, SGPT), Renal Function Test (Serum creatinine, Blood Urea).
2. Complete urine examination-Routine & Microscopic.
3. Monteux test (in case of raised ESR).
4. Human Immunodeficiency Virus, VDRL, HbsAg.
5. Vaginal swab culture
6. Cytological examination from cervical smear (Pap smear).
7. Colposcopy (If required)

Assessment criteria: A special scoring pattern was applied in symptoms and associated complaints.

Subjective Parameters

Parameter	Gradation
Amount of vaginal discharge	
Normal (no c/o discharge)	0
Mild - Occasional (slight wetting of under garments on/off)	1
Moderate - moderate wetting of under garments	2
Severe - Excessive outpouring discharges from vagina	3
Low backache	
Absent	0
Mild - Occasional (no interference with daily routine)	1
Moderate - Backache during any effort and forward bending (interference with daily routine and relief after taking medicine)	2
Severe- Excessive (affect daily routine, no relief taking medicine)	3
Dyspareunia	
Absent	0
Mild Pain during coitus	1
Moderate Pain during forceful coitus	2
Severe pain - Patient tries to avoid marital relationship	3
Pruritus vulvae	
Absent	0
Mild - Occasional	1
Moderate - Disturb daily routine/ increase after specific time like menstruation, micturation etc.	2
Severe - Intolerable itching (affects routine activity)	3
Post coital bleeding	
Absent	0
Mild- only spotting	1
Moderate- blood stained mucous discharge	2
Severe- fresh blood discharge	3

Objective Parameters

Extent of erosion	
Complete healing of erosion	0
Erosion covering less than 25% area of cervix	1
Erosion covering 26 to 50% area of cervix	2
Erosion covering 51 to 75 % area of cervix	3

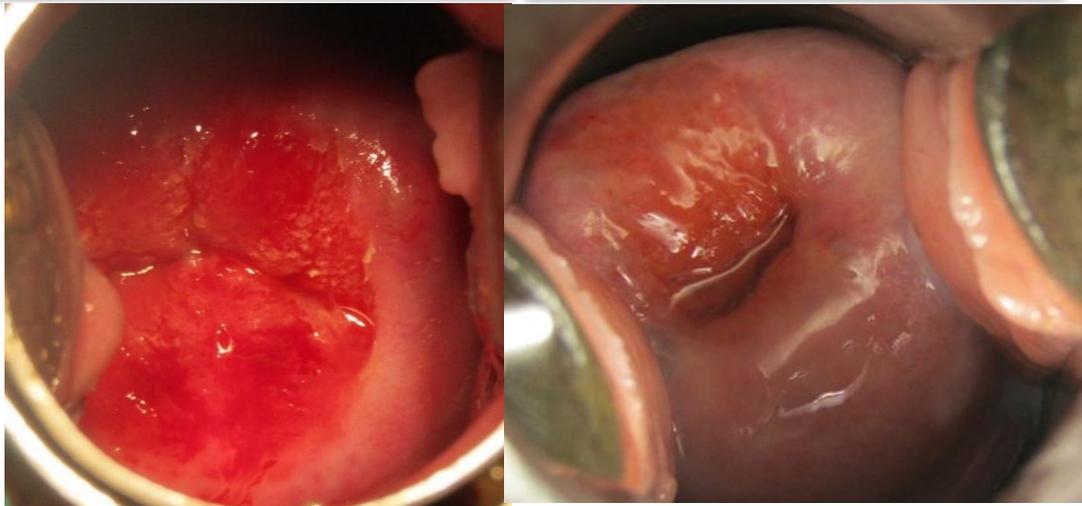
Management

Poorvakarma- Before going for *Agnikarma* proper assessment was done. Before doing the procedure fully explained about the procedure and written consent was taken from the patient and attendant. Instruments required for *Agnikarma* like *Shalaka* and *Plota*, *Pichu*, *Grita*, *Madhu*, source of *Agni* were kept ready. *Pichhilaanna* was given before the procedure.

Pradhankarma- Before performing *Agnikarma* chanting of mantras was done. Minutely examine the site where *Agnikarma* has to be performed. Proper cleaning of the area was done. *Agnikarma* was performed by *Jamabbadanshalaka*^[11] at the site until *Samyak dagdha lakshana* appears.^[12]



Paschatkarma- Gritha and Madhu was applied over the wound for proper healing



Before Treatment

After Treatment

Results

Various observations made and results obtained were computed statistically using Wilcoxon matched-pairs signed-ranks test by using Graphpad-instat 3 software to find out the significance of the values obtained and various conclusions were drawn accordingly.

Table 1: Shows the pattern of clinical recovery in various subjective parameters of cervical erosion in 15 patients treated with Agnikarma with Shalaka

Symptoms	Mean		Mean Diff.	% Relief	SD±	SE±	W	p value	Result
	BT	AT							
Vaginal Discharge	2.333	1.133	1.2	51.43	0.564	0.1456	91	0.0002	ES
Low Backache	2.067	0.7333	1.334	64.53	0.6962	0.1798	91	0.0002	ES
Dyspareunia	1.4	0.6667	0.7333	52.38	0.9224	0.2382	55	0.002	VS
Pruritus vulvae	0.8	0.3333	0.4667	58.33	0.751	0.194	21	0.0313	S
Post Coital Bleeding	0.2	0.06667	0.1333	66.65	0.3361	0.0868	3	0.5	NS

Table 2: Shows the pattern of clinical recovery in objective parameter of cervical erosion in 15 patients treated with Agnikarma with Shalaka

Symptoms	Mean		Mean Diff.	% Relief	SD±	SE±	W	p value	Result
	BT	AT							
Extent of erosion	2.467	0.6	1.867	75.68	0.5735	0.1481	120	<0.0001	ES

*N.S = Non significant, S= significant, V.S = Very significant, E.S = extremely

Table 3: Showing the percentage relief of signs and symptoms

Symptoms	Percentage relief
Vaginal Discharge	51.43%
Dyspareunia	52.38%
Pruritus vulvae	58.33%
Low Backache	64.53%
Post Coital Bleeding	66.65%
Extent of erosion	75.68%

DISCUSSION

All the patients were observed for relief in symptoms and changes in cervix. Vaginal discharge was slightly increased for first 10 days after *Agnikarma* procedure because of shedding of burnt epithelium of cervix. After 10 days, the discharge decreased and the patients found relief in other symptoms. After 7 days of *Agnikarma*, cervix was examined for healing. The area of erosion decreased and proper healing was noted in all patients. In subsequent follow ups patients found relief in all the symptoms including vaginal discharge. When the cervix was again examined after 3 months, the cervix was found totally healed and no discharge.

Effect of *Agnikarma* procedure on Subjective and objective parameters

Amount of vaginal discharges

Considerable relief (51.43%) was observed in vaginal discharge after the therapy, which was statistically extremely significant (P<0.001). *Agnikarma* enhances blood circulation and stimulate the glands that's why the vaginal discharge increased initially. *Srava* is due to property of *Kapha*.

Low backache

64.53% improvement was recorded which was statistically extremely significant (P<0.01). According to *Ayurveda*, *Shul* is due to *Vata dosha* and *Agnikarma* works on *Vata dosha* by its *Usna* and *Tikhsnaguna* and backache was improved.

Dyspareunia

Percentage of relief was 52.38% which was statistically very significant (P<0.01). It may be concluded *Agni* possesses *Uṣṇagūṇa*, this *Guṇa* of *Agni* are against the *Vata*.

Pruritus Vulvae

Percentage of relief was 58.33% which was statistically significant (P<0.05). *Kañḍu* (pruritus vulvae) is *Sleşmala* features according to *Dalhana* which is found in *Karnini*. *Agnikarma* works on the *Kaphadosa* by *Laghu*, *Sukhsma*, *Tikhsna* and *Usnaguna*. That's why *Kañḍu* (pruritus vulvae) is subsided by *Agnikarma*.

Post Coital Bleeding

Percentage of relief was 50.00% which was statistically Non significant (P>0.05). As the symptom present in few patients that's why the improvement was Non-significant.

Extent of erosion

Percentage of relief was 75.68% which was statistically extremely significant (P<0.001). By *Agnikarma* destruction of columnar epithelium was done and *Vata*, *Kapha dosha* were pacified.

Probable mode of action of *Agnikarma*

According to *Ayurveda* the probable mode of action of *Agnikarma* may be the property of *Agni*. The properties of *Agni* are *Sukhsma*, *Laghu*, *Thikhsna* and *Usnaguna*. *Agnikarma* was done by red hot *Shalaka*. The character of Physical heat of red hot *Shalaka* transferred as therapeutic heat to *Mamsa Dhatu* by producing *Samyaka dagdha vraṇa*. From *Mamsa Dhatu* this therapeutic heat acts in following ways- It works on both *Vata* and *Kaphadosa*. It works on *Vata dosha* by its *Usna* and *Tikhsnaguna* and on the *Kaphadosa* by *Laghu*, *Sukhsma*, *Tikhsna* and *Usnaguna*. It works deep in the tissue because of its power of penetration to deep tissue by virtue of *Laghu*, *Sukhsma* and *Tikhsnaguna* and maintains equilibrium. According to *Ayurveda*, every *Dhatu*

have its own *Dhatvagni* and when it becomes low, diseases begins to manifest. *Agnikarma* worked by giving external heat there thus *Dhatvagni* was increased, which helps to digest the aggravated *Doshas* and hence cured the disease. It increases the *Rasa Rakta Samvahana* (blood circulation) to affected site. So that the necessary oxygen and nutrient materials are supplied and waste products are removed. *Agnikarma* works on different *Sampraptighatak* of disease and thus *Sampraptivighatan* is done by *Agnikarma*.

Probable mode of action of *Ghrta* and *Madhu*

After *Agnikarma Ghrta* and *Madhu* in sufficient quantity was applied over the wound. Its wound healing and anti-inflammatory properties reduced inflammation and promotes granulation and epithelization.

CONCLUSION

Bahirparimarjana chikitsa in the form of *Agnikarma* found as better alternative in the management of *Karnini* (Cervical erosion). No adverse effect or complications is produced with the use of these treatments. So this treatment is safe, economic, non-surgical, and very effective and can be used as a standard for treatment of cervical erosion.

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Cite this article as:

Tiwari Richa, Pushpalatha Buduru, Bharathi K. Clinical Study to Evaluate the Efficacy of *Agnikarma* inkarnini With Special Reference to Cervical Erosion. International Journal of Ayurveda and Pharma Research. 2020;8(11):53-58.

Source of support: Nil, Conflict of interest: None Declared

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