

A review study on *Agni karma* and *Kshara karma* in the management of *Garbha Saya Grivamukhagata Vrana* (cervical erosion)

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Abstract

Purpose: To review the effectiveness of *Agni karma* and *Ksha akarma* in the management of *Garbha Saya grivamukhagata vrana* (Cervical Erosion).

Material and Methods: All the research studies from 2002 to 2024 related to concerned topic collected from electronic data base and journals both online and offline.

The procured data were studied in details and scientific review was done.

Results: On reviewing the previous works it is found that maximum studies were done on *Agnikarma* by *shalaka* having *vrana shodhana*, *ropana* and *prasadana* properties. Though *Ksharakarma* also yielded good results but comparatively fewer studies were found.

Discussion: Cervical erosion warrants urgent attention of the gynecologists as it affects the patient's reproductive health and psychology. Modern treatment for cervical erosion is cauterization and cryosurgery which have many complications such as bleeding per vagina, cervical incompetence, secondary infertility etc. So *Agnikarma* and *Ksharakarma* can be better alternative for effective treatment of cervical erosion

Conclusion: All the research works mainly were targeted for finding a best *Shodhana* and *Ropana* drugs for cervical erosion. All works were carried out on *Bahya parimarjana* (external application). This facilitates drugs effect for early and uncomplicated wound healing.

Keywords: *Agnikarma*; *Ksharakarma*; *Garbha Saya*; *Grivamukhagata vrana*; Cervical Erosion

1. Introduction

Certain diseases may not be life threatening but may be troublesome and irritating to the individual in her routine activity. Moreover, when neglected may lead to serious complication or turn into major and life threatening condition. Cervical erosion is one among them increasingly prevalent nowadays, demanding great concern over it. Cervical erosion is a common gynecological disease and seen in about 80-85% of women. Cervical erosion is the interplay between two types of epithelium. Pathologically, it is the replacement of the stratified squamous epithelium of the portiovaginalis by the columnar epithelium of the endocervix. Cardinal symptom of this disease is white discharge per vaginum which is very common in women and it is a challenge to the modern practitioner. it is a benign condition but if left untreated may leads up to infertility and predisposes to cervical malignancy. Moreover, it affects the whole efficacy of women

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1.1. Garbhasaya grivamukhagata vrana

The *vrana* is situated on the neck of the uterus or cervix (*yoni*). The *lakshanas* (symptoms) resemble that of *yonivyapada*, Reference of *yoni vrana* is available in *astanga sangraha* with reference to “*yoni vranakshana yantra*”. (As.su. 34/12). Also words like *yoni kshata lakshana (hansraja nidana- stri roga)* or other words as *prajanana vrana* in the context of *sukha sadhya vrana* can be found. While going through the Ayurvedic literature it becomes evident that all the gynecological disorders are included in *Yonirogas* as well as the *strirogas*. There is no direct reference regarding the *Garbhasaya Griva mukhagatavrana* in ayurvedic classics, there is much similarity between *vrana* and *Garvashaya Griva mukhagatavrana* as- Cause of *vrana-aguntuja* and *niija. Srava, vrana* and associated symptoms.

Line of treatment - The symptomology of the cervical erosion resembles with the *kapha pittavrana*, hence cervical erosion is considered as *kapha pitta vrana* situated in the *yoni*. Though in modern science, the cervical erosion is described extensively with few therapeutic measures, practically none of the treatment is satisfactory. Ayurveda believes that a disease caused by *asatmendriyārtha samyogapragyaparadha* and *parinama* cannot be cured without removal of *nidana* that is *mithyacara* and *vicara* etc. the disease cervical erosion is not only caused by secondary factors but also transmitted by the genetic factors (congenital). So difficulty arises in the management.

1.2. Synonyms of Garbhasaya Griva

- Garbhasaya Dwara (As. Utt. 38/55)
- Garbhasaya Dwarmukha (As.Sa.Utt. 38/55)
- Yonimukha (Ch.Ni.4/14 – Chakra)
- Garbhachhidra (Su.Sha.6/39, Dalhana)
- Garbhamarga (As.Sa. 5/113)
- Apatya path (Su.Sa.5/39)
- Raktapath (As.Sa.3/40.)

Aim:

To review the effectiveness of *Agnikarma* and *Ksharakarma* in the management of cervical erosion (*Garbhasaya Grivamukhagata Vrana*.)

Objectives:

- To screen a critical review of available literature on *garbhashaya grivamukhagata vrana*.
- To evaluate the efficacy of *Agnikarma* on *Garbhashaya Grivamukhagata Vrana*.
- To evaluate the efficacy of *Ksharakarma* on *Garbhashaya Grivamukhagata Vrana*.
- To compare the effectiveness of *Agnikarma* with *Ksharakarma* therapy in the management of *Garbhashaya Grivagata Vrana*.

2. Material and methods

All the research studies related to concerned topic collected from electronic data base and journals along with literary references from Ayurvedic classics, commentaries and modern literature. The procured data were studied in details and scientific review was done

2.1. Observation

Table: Review of different study related to *Agnikarma* and *Ksharakarma* in the management of Cervical Erosion.

Sl.no.	Study name	Sample size	Methodology	Results
1	Asha Rout, “A comparative study on effect of <i>ksharakarma</i> and <i>agnikarma</i> in management of	Specific line of treatment was tested in this study on 24 patients in 2 groups	In group a (n-12) <i>agnikarma</i> by <i>vrana-ropaka shalaka</i> (prepared by <i>haridra, yastimadhu, nimba and amalaki</i>) and then local application of <i>udumbara taila</i> as	The study concluded that <i>vrana-ropaka shalaka</i> along with <i>udumbara taila</i> <i>yonipichudharana</i> causes reduction of erosion along

	<i>garbhashaya grivamukha gata vrana</i> " 2002.		<i>pichudharana</i> (for 15 days) were performed. In group b (n-12) <i>ksharakarma</i> by <i>snuhikshara</i> and then local application of <i>udumbara taila</i> as <i>pichudharana</i> (for 15 days) were applied.	with complete symptomatic relief. In total <i>agnikarma</i> and <i>ksharkarma</i> can be better alternative in cervical erosion especially <i>agnikarma</i>
2	Meena Bhayal, "A comparative study of <i>agnikarma</i> and <i>avachurnana</i> in management of <i>garbhashaya griva gata vrana</i> ", 2003.	In this study <i>agnikarma</i> (cauterization)[group a] and <i>avachurnana</i> (sprinkling of powder)[group b] modality in one sitting were tested on the patients of cervical erosion (n-50).	For <i>agnikarma</i> , a <i>shalaka</i> was prepared out of <i>haridra</i> , <i>yastimadhu</i> , <i>nimba</i> , <i>karanja</i> and <i>amalaki</i> . for <i>avachurnana dhatrinishadi churna</i> was used. before the both procedures <i>nimba patra kwatha prakshalana</i> (douche) was done in both groups.	<i>Agnikarma</i> therapy showed better relief in signs of <i>garbhasaya grivagata vrana</i> . hence in symptoms better result observed in <i>avachurnana</i> group
3	Jasmin Kazi, "A comparative study on effect of <i>agnikarma</i> and electric cauterization in management of <i>garbhashaya grivamukha gata vrana</i> (cervical erosion)", 2005.	<i>Agnikarma</i> and cauterization were applied for the treatment of <i>garbhashaya grivamukhagata vrana</i> in 33 patients. The patients were studied into 3 groups.	In group a (n-14) with <i>agnikarma</i> by <i>shalaka</i> prepared from <i>haridra</i> , <i>yastimadhu</i> , <i>nimba</i> , <i>karanja</i> and <i>amalaki</i> then <i>jatyadi taila pichu</i> was applied per vagina once a day for 7 days, In group c (n-11) with electric cauterization and in group p (n-8) with placebo.	The study concluded that <i>agnikarma</i> therapy showed better relief in signs than electric cauterization and also better results was obtained in 1st and 2nd degree of cervical erosion.
4	Hemalata Chimte, A comparative clinical study of <i>agnikarma</i> with <i>swarna shalaka</i> and <i>karanjadi agnikarma shalaka</i> in the management of <i>garbhashaya grivamukhagata vrana</i> , 2012.	Total 31 patients of cervical erosion were registered and divided into 2 groups.	In group a (n-16) <i>agnikarma</i> with <i>swarna shalaka</i> done and after that <i>yastimadhu</i> powder mixed with <i>ghrita</i> as required was applied over the wound once a day for a week. In group b (n-15) <i>agnikarma</i> with <i>karanjadi shalaka</i> done and after that <i>yastimadhu</i> powder mixed with <i>ghrita</i> as required was applied over the wound once a day for a week.	The study concluded that both <i>swarna shalaka</i> and <i>karanjadi agnikarma shalaka</i> had shown encouraging results on cervical erosion but due to better and early healing in addition to the convenience of use, <i>swarna shalaka</i> is better for <i>agnikarma</i> in case of <i>garbhashaya grivamukhagata vrana</i> (cervical erosion).
5	Dr. Jasmine Gujarathi: Management of cervical erosion by <i>agnikarma</i> , 2012.	Total 11 patients with cervical erosion were studied.	For <i>agnikarma shalaka</i> <i>haridra</i> , <i>yashtimadhu</i> , <i>karanja</i> , <i>nimba</i> , <i>amalki</i> , <i>guggulu</i> and <i>ghrita</i> was used.	All the patients were observed for relief in symptoms and changes in cervix. vaginal discharge was increased for first 10 days. After 15 days of <i>agnikarma</i> , cervix was examined for healing. The area of erosion decreased and proper healing was noted in all patients. In subsequent follow ups all the symptoms including vaginal discharge.

				When the cervix was again examined after 3 months, the cervix was found totally healed with new epithelium and no discharge.
6	Neelam and Neeraj Kumar: Management of cervical erosion.2009	Total 50 female patients of different age groups.	Group 1: Electric Cauterization + <i>Udumbara</i> Ointment Application. Group 2: <i>Snuhi Kshara</i> Cauterization + <i>Udumbara</i> ointment application	Results were assessed on the basis of epithelization of erosion. it was seen that all the cases were cured in group 2, while in group 1 only 80% cases had complete epithelization of erosion. in group 1 no trace of epithelization was seen in 16% cases.
7	Dr. Pragya Gupta: Clinical evaluation of the efficacy of <i>kshara karma</i> with <i>apamarga kshara and jatyadi taila pichu</i> in the management of cervical erosion. 2015	Total 30 patients. Group I 15no Group 1:15 Nos	Group 1- 15 registered patients were administered with application of ' <i>apamarga kshara</i> ' on cervix and ' <i>jatyadi taila</i> ' <i>pichu</i> in the vagina for 7 sitting alternate day in a month Group 2: 15 registered patients of cervical erosion were administered with ' <i>jatyadi taila</i> ' <i>pichu</i> in the vagina daily for 14 days in a month. Treatment was done after bleeding phase of menstrual cycles over.	Overall percentage relief was higher in group i 72.17% followed by group ii i.e. 68.44%).
8	Parmar Meena and Parmar Gaurav: Role of <i>ksharakarma</i> in recurrent cervical erosion: A case study.2014	A case study of female patient of 30 years with cervical erosion.	<i>kshara karma</i> was done with <i>apamarga kshara</i> for three consecutive days followed by <i>jatyadi taila</i> tamponing per vaginum for consecutive two weeks for two menstrual cycles.	Re-epithelization was 60% at four weeks and totally completed at eight weeks. There was marked reduction of symptoms and signs of cervical erosion. Patient was keenly observed for a period of six months with follow up every month and she remained fully asymptomatic during this period.
9	Anjali Verma and Sarvesh Kumar: Role of <i>chandrodaya varti agnikarma</i> in the management of cervical erosion, 2016.	A case study of female patient of 31 years with cervical erosion	<i>Agnikarma</i> was done with <i>chandrodaya varti</i> for one day followed by <i>jatyadi taila</i> tampon per vaginum for 7 days and other oral medication for 21 days.(<i>chandrprabha vati, vidanga churna,, guduchi churna, rasmanikya</i>)	Appearance of cervix after 8 days of <i>agnikarma</i> : typically present all the symptoms of <i>ruhyaman vrana</i> (healing wound) as defined in classics. after 21 days of <i>agnikarma</i> : typically symptoms of <i>samyaka rudhavrana</i> (healed wound). Patient was keenly observed for a period of six months with follow up every month and she remained fully asymptomatic during this period.
10	Himangi V. Baldaniya: Role of <i>agnikarma shalaka</i>	Total 20 patients	<i>Garbhashaya grivamukhagata vrana</i> were treated with agni karma (1 sitting) followed by	Over all maximum number of patient's i.e. 85% of patients were completely cured. 5%

	in the management of <i>garbhashaya grivagata vrana</i> (cervical erosion): a clinical study, 2017.		<i>Jatyadi taila</i> pichu p/v for 7 days. <i>Agnikarma shalaka</i> which made by equal quantity of 7 drug <i>Karanj, Yastimadhu, Nimbapatrachurna, Haritaki, Haridra, Vacha, Shudha Gugglu</i> was used.	markedly improved and 5 % patients moderately improved. only 5 % of patients remained unchanged
11.	Dr. Neha Mamgain, Dr. Hemlata Chimate Efficacy of <i>agnikarma</i> with <i>swarna shalaka</i> in the management of <i>garbhashaya grivamukhgata vrana</i> (cervical erosion).IJCR, 2018.	Age between 20 to 60, 18 patients of cervical erosion were registered and out of them 16 patients had completed the course of therapy	<i>Agnikarma with Swarna Shalaka</i> was applied over the area of Cervical erosion. After that <i>Yastimadhu</i> powder mixed with <i>Ghrita</i> as required was applied over the wound once a day for a week. One sitting after 7th day of menstrual period	Overall effect of the therapy on 16 patients of <i>garbhashaya grivamukhgata vrana</i> shows 68.75 % patients were markedly improved, 13.25% of patients were moderately improved. during follow up study no patient had complaint of recurrence of symptoms within 1 month. but after 4- 6 months of follow up 4 patients in had complained of recurrence
12.	Tiwari Richa, Pushpalatha Buduru, Bharathi K, Clinical study to evaluate the efficacy of <i>agnikarma</i> in <i>karnini</i> with special reference to cervical erosion. IJAPR , 2020.	Age between 20 to 45 years. Total 15 clinically diagnosed patient.	<i>Agnikarma</i> was performed by <i>Jamabbadanshalaka</i> at the site until <i>Samyak dagdha lakshana</i> appears	Percentage of relief was 75.68% which was statistically extremely significant (p<0.001).after 7 days of <i>agnikarma</i> , 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.
13.	Dr. Pramodini J. Patil and Dr. Anupama V. A clinical study to evaluate the efficacy of <i>yavakshara</i> in <i>Garbhashaya greevagata vrana</i> w.s.r. to cervical erosion, International Journal of AYUSH; 2021	Age group of 18 - 45 yrs.40 patients diagnosed of <i>Garbhashayan Greevagata Vrana</i> (Cervical Erosion) and randomly assigned into two equal groups.	Group A: 20 patients were treated with <i>Sthanikachikitsa(Yava kshara)</i> Group B: 20 patients were advised to follow <i>Pathya</i> and <i>Apathya</i> for 10 days Follow up was done after 7th day of next menstrual cycle for both the groups.	The efficacy of treatment on patients in group A on appearance of erosion is statistically highly significant with p-value <0.001 after the treatment as well as at follow up. The efficacy of treatment on patients in groups B on appearance of erosion is statistically non significant with p-value >0.05 after the treatment and at follow up.
14.	B. Pushpalatha, Sujata Kadam, K.Bharathi, Anu.M.S," Effect of <i>kshara karma</i> with <i>apamarga pratisaraniya kshara</i> in cervical erosion - a case report."	Case report of a 40 year old female patient diagnosed with cervical erosion	<i>Kshara</i> was left in-situ for hundred <i>Matra kala</i> (approximately 1 minute), then cervix was cleaned with decoction of <i>Triphala</i> . The procedure was repeated on alternate days for 3 sittings for two cycles, starting from fifth day of menstruation. Follow up	After two course of <i>kshara karma</i> , complete cure was obtained in the amount of vaginal discharge and extent of erosion. Moderate relief was obtained in low back ache also. no relief was obtained in dyspareunia, it may be due to the reason that patient was

	AYUSHDHARA. 2022		study after first course of <i>Kshara karma</i> was done on the fifth day of next menstruation, and assessment was done and second course of <i>Kshara karma</i> were done.	also suffering from pelvic inflammatory disease.
15	Dr. Shafiqul Aziz Khan and Dr. Papiya Jana, “ <i>Pratisaraniya kshara karma</i> in the management of <i>garbhashaya greevamukhagata vrana</i> w.s.r. to cervical erosion-a para surgical technique.” WJPLS, 2022	Case study of a female patient aged 32 years	Patient was treated for 7 days with a) <i>Yava kshara</i> b) <i>Yoni Prakshalana with Triphala+ Panchavalkala Kwatha</i> c) <i>Yoni Pichu with Kasisadi Taila</i> d) <i>Matra Basti with Mahanarayana Taila 60mL</i>	After 7 days of treatment patient’s symptoms were reduced, there was Reduction in the circumference of cervical erosion was noted from 95% to 35% after 7days of treatment.
16	Dr. Pallavi Maheshwari and Dr. Papiya Jana, “Ayurvedic approach in management of <i>garbhashaya greeva mukhagata vrana</i> vis a vis cervical erosion- a case study.” WJPLS 2022.	Case study of a 30 year old lady diagnosed with cervical erosion	<i>Yavakshara karma</i> + lemon juice for 7days <i>Yoni prakshalana</i> with <i>triphala kashaya</i> for 7 days	Finally after 15 days of application of <i>Kshara</i> , the patient’s cervix became healthy and erosion was reduced completely. the oral use of <i>pushyanugacurna</i> showed it’s benefit in controlling the excessive vaginal white discharge.
17	Nisha Chaudhary, Anjali Verma, Hemprakash, “Cervical erosion management by virtue of <i>agnikarma</i> .” JAHM 2023.	20 no patients diagnosed with cervical erosion	<i>Lauha Shalaka</i> was used in clockwise direction in customized <i>Vinduvat Agnikarma</i> manner on ectocervical eroded region. Afterwards patient was advised <i>Murchita Tila Tail picchu</i> high in vaginal canal at bed time for 7 days.	Overall maximum no. of patient’s i.e. 85% of patients were completely cured.
18	Sonam, Asokan V, “Randomized trial on electrified <i>tamra shalaka agnikarma</i> and <i>punarnavashtaka ghanavati</i> on <i>garbhashaya grivagata vrana</i> (cervical erosion).” IAMJ, 2023	Women aged between 20-35 years, diagnosed with cervical erosion Group A - Trial group of 20 patients - <i>agnikarma</i> and oral medication. Group B - Control group of 20 patients - Only <i>agni karma</i> until <i>samyak dagdha</i>	Cautery was applied as <i>bindu</i> (dotted) or <i>rekha</i> . <i>Yoni pichu</i> of <i>jatyadi taila</i> was administered after the procedure once daily for 7 days. <i>Paschat karma</i> : <i>Yoni prakshalana</i> with lukewarm water once daily for seven days followed by <i>yni pichu</i> with <i>jatyadi taila</i> once daily. After 15 days of <i>agnikarma</i> , p/s examination was done for observing healing process, colour and discharge and any other findings. Follow	Based on the above assessment parameters the overall percentage of improvement in group A was 81.6% whereas the same in group B was 90.5%. The difference in percentage of both the groups is 9%. This proves that group B is more effective than group A in management of <i>garbhashaya grivagata vrana</i> (cervical erosion).

		<i>lakshana</i> for 7 days	up study of the patients was carried out on 30th day, 45th day and 60th Day.	
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3. Discussion

Cervical erosion warrants urgent attention of the gynecologists as it affects ladies of child bearing age and there by upsets the patient's psychologically. If it is asymptomatic and physiological then needs no treatment. But when it is symptomatic and infected then the treatment is needed. Modern treatment for cervical erosion is cauterization and cryosurgery which have their side effects like secondary infertility, bleeding per vagina, infection, stenosis etc. That is why traditional system of medicines is getting valued and the traditional methods are searched for better results with lesser side effects. On reviewing the theses works, the following points can be noted down. Many procedures and drugs were tested for cervical erosion. Maximum works were done on *Agnikarma* by *shalaka* prepared with various drugs which have *vrana shodhana*, *ropana* and *prasadana* properties which yield good results in healing the wound. In one of the comparative study of *agnikarma* by *karanjadi shalaka* and *suvarna salaka*, *suvarna salaka* got better result and more convenience to use. Treatment plan for *Garbhashaya Grivamukhagata Vrana* was restricted to *sraava*, *shotha* and *vrana ropana*. Some local preparations like *Jatyadi Taila*, *Udumbaradi Taila*, *Yastimadhu Churna*, *Nishadichurna*, *Dhatrinishadi Churna* having wound healing properties were tested. Among the 18 research works, 10 works on *agnikarma*, 7 works on *kshara karma* and 1 work comparing *agnikarma* *ksharkarma* were studied. Among the *kshara Snuhi kshara*, *Yava kshara* and *Apamarga kshara* were found in the studies. The research also included comparative study between electric cauterization and *Agnikarma* as well as electric cauterization and *Ksharkarma*, where it was found that *Agnikarma* and *Ksharkarma* gave better results than electric cauterization.

4. Conclusion

The recurrence of cervical erosion makes the disease troublesome for patients. The local medications and oral therapy only alleviates the vaginal discharge and pain, but the erosion remains as it is and the symptoms return after ceasing the treatment. Hence a effective, safe and cheap therapy is required to cure this disease from the root. All the research works mainly were targeted for finding a best *shodhana* and *ropana* drugs for cervical erosion. All works were carried out on *bahya parimarjana* (external application). This facilitates drugs effect for early and uncomplicated wound healing. *Agnikarma* and *Ksharkarma*, have shown encouraging results in curing cervical erosion without recurrence in almost all the studies except one.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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