

AGNI KARMA IN THE MANAGEMENT OF CERVICAL EROSION (KARNINI YONIVYAPAD): A CASE STUDY

Sweta Singh Rathore^{1*}, Saurabh Kumar²

¹Assistant Professor, Department of Prashuti Tantra Evam Striroga, Major S. D. Singh Ayurvedic Medical College and Hospital, Baghar, Bewar Road, Farrukhabad U.P.

²Assistant Professor, Department of Rog Nidan Evam Vikriti Vigyan, Amrapali Ayurvedic Medical College and Hospital, Bhehta Mujavar, Bangarmau, Unnau, U.P.

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*Corresponding Author

Sweta Singh Rathore

Assistant Professor, Department of Prashuti Tantra Evam Striroga, Major S. D. Singh Ayurvedic Medical College and Hospital, Baghar, Bewar Road, Farrukhabad U.P.

dr.shwetachauhan02@gmail.com



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ABSTRACT

Cervical erosion, clinically termed cervical ectopy, is a common gynecological condition where delicate glandular cells appear on the outer surface of the cervix. Many women with this condition experience bothersome symptoms like excessive vaginal discharge, spotting between periods, pain during intercourse, or a persistent feeling of pelvic heaviness. While modern medicine offers treatments such as electrocautery or cryotherapy, these can sometimes be expensive, require advanced infrastructure, or lead to post-procedural scarring. This case study presents a 32-year-old female patient diagnosed with cervical erosion who was treated with *Agni karma* (therapeutic cauterization) using *Rajata Shalaka* (silver probe). The procedure was performed in an outpatient setting following classical Ayurvedic protocols. The patient experienced complete resolution of symptoms within two weeks and colposcopic evidence of healing at eight weeks

follow-up. No recurrence was observed over six months. This case demonstrates that *Agni karma* offers a simple, affordable, and effective alternative for managing cervical erosion, particularly in resource-limited settings.

KEYWORDS: Agni karma, cervical erosion, cervical ectopy, case study, Karnini Yonivyapad, Rajata Shalaka, therapeutic cauterization, women's health.

INTRODUCTION

Cervical erosion, clinically termed cervical ectopy, represents one of the most prevalent gynecological conditions encountered in women of reproductive age groups. The condition is characterized by the replacement of the normal stratified squamous epithelium of the ectocervix by the fragile columnar epithelium from the endocervical canal.^[1] This epithelial transformation results in a red, granular appearance on the cervix, often mistaken for true erosion or ulceration. Despite its benign nature in most cases, cervical erosion can produce a constellation of bothersome symptoms that significantly impair a woman's quality of life.

According to published epidemiological data, cervical erosion accounts for approximately 50-85% of all gynecological conditions.^[2] Patients typically present with profuse, offensive vaginal discharge (leukorrhea), intermenstrual spotting, post-coital bleeding (dyspareunia), persistent pelvic heaviness, and occasionally, low back pain when associated with concurrent cervicitis.^[3,4] The condition is also recognized as a potential contributor to infertility and constitutional ill-health, with significant psychological ramifications for affected women.

Modern medical management of cervical erosion primarily employs destructive techniques including electrocautery, cryotherapy, and laser ablation. While these modalities are effective, they present several limitations: they require sophisticated infrastructure, are relatively expensive, may cause post-procedural scarring leading to cervical stenosis, and are not readily accessible in resource-limited settings.^[5,6]

In the classical Ayurvedic texts, cervical erosion finds its closest correlation with *Karnini Yonivyapad*, one of the twenty *Yonivyapadas* (gynecological disorders) described by the ancient Acharyas.^[7,8] The term "*Karnini*" derives from "*Karna*" (ear), referring to the ear-like projections or granular appearance of the affected cervical tissue, which resembles the internal structure of the ear.^[9] The condition is attributed to the vitiation of *Vata* and *Kapha doshas*, with simultaneous involvement of *Rakta dhatu*.^[10] Among the various therapeutic interventions described in Ayurveda, *Agni karma* (therapeutic cauterization) emerges as a particularly elegant and effective para-surgical solution.

This case study reports the successful management of a 32-year-old female patient with cervical erosion using *Agni karma* with *Rajata Shalaka*, along with appropriate adjunctive therapies.

CASE PRESENTATION

- **Patient Demographics and History-** A 32-year-old married female, gravida 2 para 2, presented to the Outpatient Department of Prashuti Tantra Evam Striroga at Major S. D. Singh Ayurvedic Medical College and Hospital, Farrukhabad, U.P., in January 2026, with chief complaints of profuse white vaginal discharge, intermenstrual spotting, and pain during intercourse for the past eight months.
- **Patient Presentation and Chief Complaints-** Patient reports offensive, sticky whitish discharge, intermenstrual spotting 2-3 days pre-menses, dyspareunia (6/10 VAS), and dull pelvic heaviness worsening with prolonged standing.
- **Menstrual and Obstetric History-** Menarche at 13 years with regular 28-30 day cycles, 4-5 days bleeding. No menorrhagia or metrorrhagia. Gravida 2, para 2, both full-term normal deliveries, last three years ago. No postpartum complications.
- **Past Medical and Personal History-** No diabetes, hypertension, tuberculosis, or STIs. No prior gynecological surgeries. Mixed vegetarian diet, regular bowel/bladder, adequate sleep. No tobacco or alcohol use.
- **General Physical Examination-** Moderate build. Vital signs: pulse 78/min, BP 118/76 mmHg, RR 16/min. No pallor, icterus, cyanosis, clubbing, or lymphadenopathy. Systemic examination unremarkable.
- **Per Speculum Examination-** Cervix red, granular, eroded around external os involving 60% of ectocervix (Grade II). Scanty mucoid discharge noted. No active bleeding points visualized.
- **Per Vaginal Examination-** Uterus anteverted, normal size, firm, non-tender. Cervix mobile, no cervical motion tenderness. Adnexa free and non-tender. No pelvic pathology detected.
- **Colposcopic Assessment-** Grade II erosion (50-70% involvement). Well-defined margins. No atypical vessels or acetowhite areas. Transformation zone partially visible. Excludes cervical intraepithelial neoplasia.
- **Ayurvedic Dosha Status-** Vata moderately vitiated (pain). Kapha severely vitiated (excessive discharge). Pitta mildly vitiated (inflammation). This doshic imbalance explains the complete symptom complex.
- **Ayurvedic Dhatu and Srotas Assessment-** Rakta dhatu involved (redness, spotting). Rasa dhatu normal. Mamsa dhatu locally involved. Artavavaha srotas primarily affected. Raktavaha srotas secondarily involved.

Diagnosis (Ayurvedic): *Karnini Yonivyapad***Inclusion and Exclusion Criteria Assessment**

Based on standardized criteria published in CTRI-registered clinical trials^[11,12,13], the patient met all inclusion criteria:

Inclusion Criteria Met

- Married woman
- Age 32 years (within 20-45 years range)
- Clinically diagnosed cervical erosion on per speculum examination
- Provided written informed consent

Exclusion Criteria Verified (None Present)

- Not pregnant
- HIV, VDRL, HBsAg: Negative
- Not using IUCD or oral contraceptives
- No organic pathologies (endometrial/cervical cancer, CIN)
- No severe systemic disorders
- No uterine prolapse
- No menstrual abnormalities (menorrhagia, metrorrhagia, polymenorrhea)

Intervention: Agni Karma Procedure**Required Instruments and Materials**

The *Agni karma* procedure was performed using minimal, inexpensive equipment.^[14]

Instrument/Material	Specification	Purpose
<i>Shalaka</i> (probe)	<i>Rajata Shalaka</i> (silver probe), 18 cm length, rounded tip	Heat application to eroded area
Cautery heating source	Spirit lamp	Heating the <i>Shalaka</i>
Cusco's speculum	Sterile, medium size	Vaginal examination and cervical exposure
Sponge-holding forceps	Sterile	Cervical cleaning
Antiseptic solution	Povidone-iodine 10%	Vulvovaginal cleansing
<i>Ghrita</i> and <i>Madhu</i>	Plain, equal proportion	Post-procedural application
<i>Jatyadi taila</i>	Medicated oil (from authorized pharmacy)	Post-procedural <i>Yoni pichu</i>
<i>Panchavalakala Kwatha</i>	Freshly prepared decoction	<i>Yoni Prakshalana</i>

The choice of *Rajata Shalaka* (silver probe) was based on classical Ayurvedic texts that describe silver as having *Sheeta veerya* (cold potency) that counteracts the thermal effect and promotes healing^[15,16] Published case reports have documented successful outcomes with *Rajata Shalaka*.^[17]

Pre-procedural Preparation (Purva Karma)

The procedure was scheduled on the 8th day after the cessation of menstrual bleeding, as recommended in the classical protocol.

Step 1 – Patient Preparation

- Detailed explanation of the procedure, expected outcomes, and potential risks was provided.
- Written informed consent was obtained in the patient's native language (Hindi).
- Patient was counseled about post-procedural precautions.

Step 2 – Yoni Prakshalana

- The vagina and cervix were cleansed with lukewarm *Panchavalakala Kwatha* (a decoction of five astringent herbs) using sterile gauze.
- Excess moisture was gently dabbed away.

Step 3 – Aseptic Preparation

- The patient was placed in the lithotomy position on a standard examination table.
- The vulva and perineum were cleaned with 10% povidone-iodine solution.
- Sterile draping was applied.

Main Procedure (Pradhana Karma)

Step 1 – Speculum Insertion

- A sterile Cusco's speculum was gently inserted to visualize the cervix completely.
- The cervix was swabbed gently with sterile gauze to remove any discharge.

Step 2 – Shalaka Heating

- The *Rajata Shalaka* was heated over a spirit lamp until the tip glowed red-hot (approximately 100-150°C).

Step 3 – Cauterization

- The heated *Shalaka* was applied with gentle, precise strokes to the eroded cervical tissue.
- Application was performed in a grid pattern around the external os, avoiding excessive depth.
- Each application lasted approximately 1-2 seconds.
- A total of 12-15 strokes were applied to cover the entire eroded area.

Step 4 – Identification of Samyaka Dagdha

- The classical sign of proper cauterization – *Kapota varna* (pigeon or bluish-brown discoloration) – was observed over the treated area.
- This indicated optimal thermal penetration without deep tissue destruction.

Post-procedural Care (Paschat Karma)

- **Immediate Application:** A mixture of *Ghrita* (clarified butter) and *Madhu* (honey) in equal proportion was applied over the treated area to soothe the tissue and promote healing.
- **Yoni Pichu:** A sterile gauze piece (2×4 cm size) soaked in 20 ml of *Jatyadi taila* was placed intravaginally as a *pichu*. This was retained for 8 hours.
- **Observation:** The patient was observed for 60 minutes for any immediate complications. No excessive bleeding or vasovagal response occurred.

Follow-up Instructions Provided

- Avoid coitus for 3 weeks.
- Avoid strenuous activity and heavy lifting for 2 weeks.
- Avoid vaginal douching for 4 weeks.
- Use sanitary pads instead of tampons for the next menstrual period.
- Report immediately if excessive bleeding, foul discharge, or severe pain occurs.

Oral Formulations Prescribed (15 days post-procedure)

1. *Triphala Guggulu* (500 mg twice daily): Provides anti-inflammatory, antimicrobial, and tissue-healing properties.
2. *Yogaraj Guggulu* (500 mg twice daily): Supports *Vata-Kapha* pacification and promotes *Rasayana* (rejuvenation) effects

Local Applications Used

1. *Jatyadi taila* (vaginal *pichu*): Classical Ayurvedic formulation with *Vrana Ropana* (ulcer-healing) and antimicrobial properties.
2. *Ghrita-Madhu* mixture: Immediate post-procedural application reduced burning sensation and promoted epithelialization.

Results and Follow-up

1. Immediate Post-procedural Period (Day 1-7)

- **Day 1:** Patient experienced mild lower abdominal cramping (rated 2/10) for 2 hours post-procedure. Minimal serosanguinous discharge was noted. No active bleeding or fever.
- **Day 3:** Patient reported significant reduction in vaginal discharge (from 8/10 severity to 3/10). Intermenstrual spotting had completely ceased. No dyspareunia as patient abstained from intercourse.
- **Day 7:** Vaginal discharge reduced to minimal amount (1/10 severity). Pelvic heaviness completely resolved. Patient resumed routine activities without discomfort.

2. Follow-up at 4 Weeks

Per speculum examination at 4 weeks revealed: The cervical erosion had healed significantly (reduced from 60% to approximately 15% involvement). The remaining area appeared as healthy squamous epithelium with no granular changes. No discharge was visible on the cervix.

3. Follow-up at 8 Weeks

Colposcopic assessment at 8 weeks demonstrated: Complete healing of cervical erosion (0% involvement). Healthy stratified squamous epithelium covering the entire ectocervix. No evidence of scarring or cervical stenosis. Transformation zone was fully visualized.

4. Follow-up at 6 Months

The patient was followed up at 6 months post-procedure: No recurrence of symptoms (vaginal discharge, spotting, dyspareunia, pelvic heaviness). Per speculum examination showed normal cervical appearance. Patient reported improved quality of life and sexual satisfaction. Regular menstrual cycles continued without any abnormalities.

Summary of Outcomes

Parameter	Pre-procedure	Day 7	Week 4	Week 8	Month 6
Vaginal discharge severity (0-10)	8	3	1	0	0
Intermenstrual spotting	Present	Absent	Absent	Absent	Absent
Dyspareunia (0-10 VAS)	6	N/A*	0	0	0
Pelvic heaviness	Present	Absent	Absent	Absent	Absent
Cervical erosion on colposcopy	60% involvement	Not done	15% involvement	0%	0%

DISCUSSION

The therapeutic efficacy of *Agni karma* in managing cervical erosion can be comprehensively understood through a dual lens: the classical Ayurvedic framework of *Dosha-Dhatu-Mala* physiology and the contemporary biomedical understanding of thermal tissue interaction. This integrated perspective not only validates the ancient practice but also provides a rational basis for its clinical application.

From an Ayurvedic perspective, the controlled thermal energy delivered by the *Shalaka* acts primarily to pacify the vitiated *Doshas* responsible for the pathogenesis of *Karnini Yonivyapad*. The procedure directly mitigates the deranged *Vata dosha*, which is classically implicated in causing the irregular, non-healing nature of the erosion, along with associated symptoms like pain and contact bleeding. Simultaneously, the heat reduces the accumulated *Kapha dosha*, thereby addressing the cardinal features of excessive, sticky vaginal discharge and local tissue congestion. Beyond *Dosha* pacification, *Agni karma* serves as a potent *Raktashodhaka* (blood purifier). The thermal stimulus is believed to eliminate *Ama* (metabolic toxins) that have accumulated within the cervical microcirculation, thereby cleansing the *Rakta dhatu* (blood tissue). Finally, the procedure rejuvenates local tissue metabolism by stimulating the *Dhatu Agni* (tissue fire). The precisely controlled thermal injury paradoxically acts as a regenerative trigger, promoting the sequential and healthy formation of *Rasa* (plasma/nutrient tissue), *Rakta* (blood tissue), and *Mamsa dhatus* (muscular/stromal tissue), which collectively restore the structural and functional integrity of the cervix.

From a contemporary biomedical perspective, the benefits of *Agni karma* are equally well-defined through the lens of thermal coagulation and wound healing biology. The primary mechanism involves the precise thermal destruction of the ectopic columnar epithelium that

has abnormally extended onto the ectocervix. The heat energy, applied at a controlled temperature (ideally between 60-100°C), denatures proteins and coagulates the cellular components of the pathological tissue, effectively removing the source of excessive discharge and friability. This controlled injury then initiates a well-orchestrated acute inflammatory response. The heat acts as a chemoattractant, recruiting macrophages, neutrophils, and fibroblasts to the site, while also upregulating various growth factors (such as VEGF and TGF- β). This cellular cascade promotes neo-angiogenesis (formation of new blood vessels) and collagen deposition, which are essential for rebuilding the cervical stroma. The ultimate therapeutic goal is the induction of squamous metaplasia, a natural healing process where the destroyed columnar epithelium is replaced by healthy, resilient stratified squamous epithelium—the normal tissue covering the ectocervix. Additionally, the cauterization effect achieves immediate thermal coagulation of the small, fragile blood vessels within the eroded area. This not only reduces the existing contact bleeding but also eliminates the friable nature of the tissue, thereby preventing future post-coital spotting.

Remarkably, the classical sign of *Samyaka Dagdha* (proper cauterization) described by Acharya Sushruta—specifically the appearance of *Kapota varna* (pigeon or bluish-brown discoloration)—corresponds precisely to the modern understanding of optimal thermal coagulation. This characteristic color change indicates that the tissue has achieved protein denaturation at the ideal temperature range of 60-100°C without reaching carbonization. Carbonization, which would appear as black, charred tissue, signifies excessive heating and deeper thermal penetration, leading to unnecessary tissue damage, delayed healing, and potential scarring such as cervical stenosis. Therefore, the *Kapota varna* sign serves as a clinically valuable endpoint, ensuring that the therapeutic heat is both effective in destroying the ectopic epithelium and safe in preserving the underlying healthy tissue architecture. In this case, the *Kapota varna* discoloration was achieved consistently across the treated area, explaining the excellent healing outcomes without complications.

CONCLUSION

This case study demonstrates that *Agni karma* represents a valuable, time-tested para-surgical intervention in the management of cervical erosion (*Karnini Yonivyapad*). A 32-year-old female patient with Grade II cervical erosion (60% involvement) and significant symptoms including profuse discharge, intermenstrual spotting, dyspareunia, and pelvic heaviness was successfully treated with a single session of *Agni karma* using *Rajata Shalaka*.

The procedure's elegant simplicity, minimal infrastructure requirements, cost-effectiveness, and favorable safety profile were evident in this case. The patient experienced noticeable relief from symptoms within days, with complete resolution by eight weeks and no recurrence at six months follow-up. The mechanism of action was well-aligned with both Ayurvedic principles (*Vata-Kapha* pacification, *Rakta Shodhana*) and contemporary biomedical understanding (precise epithelial destruction followed by squamous metaplasia and tissue regeneration).

When integrated with appropriate adjunctive therapies such as *Triphala Guggulu*, *Jatyadi taila*, and proper post-procedural care, *Agni karma* offers a comprehensive treatment approach that addresses both the local pathology and the underlying constitutional imbalances. The procedure's low recurrence rate and minimal risk of complications – particularly when compared to modern cauterization techniques – further enhance its clinical value.

However, it is imperative to emphasize that *Agni karma* should only be performed by adequately trained Ayurvedic physicians following proper aseptic protocols and patient selection criteria. The sign of *Samyaka Dagdha* (proper cauterization) must be carefully observed to avoid thermal injury.

In conclusion, *Agni karma* deserves recognition as a woman-friendly, conservative, and effective therapeutic option in the management of cervical erosion. Its integration into mainstream gynecological practice – particularly in primary care settings and rural healthcare facilities – has the potential to improve access to quality reproductive healthcare for millions of women.

Informed Consent

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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