Ayurvedic Management of Cervical Erosion through Ksharakarma - A Review

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Abstract:- Cervical erosion happens when cells that line the inside of your cervix grow on the outside. Nowadays it is very common among women in reproductive age. This review is done to know the effect of its treatment as vrana by means of ksharakarma by using different types of kshara. It concluded that it is cost effective, has almost equivalent effect of modern treatment in terms of its result, less complications like secondary infertility etc and less chance for the remerging of the same.

Keywords:- cervical erosion, garbhasayamukhagatha vrana, apamarga kshara, palasha kshara, tuttha kshara

I. INTRODUCTION

Cervical erosion/ectopy is a benign condition where the squamous epithelium of the ectocervix is replaced by columnar epithelium, which is continuous with the endocervix[1]. Nowadays it is widely accepted as a morphophysiological expression of changes initiated by ovarian hormones occurring different periods of life.

The prevalence of cervical erosion ranges between 17-50%. Prevalence increases with parity but decreases with age 35 and above and it is uncommon in post-menopausal women. Cervical erosion can be found in up to 80% of sexually active adolescents[2].

Aetiology
1. Congenital and developmental
2. Acquired
   (1) Hormonal (usually found in the conditions of high estrogen)
   • Adolescents
   • Pregnancy
   • Women on oral contraception
   • During the years of menstruation mainly in the ovulatory phase
   (2) Infection
   • Cervicitis

Symptoms
Woman with cervical erosion may present vaginal discharge (mucoid/ mucopurulent/ irritant/ offensive/ blood stained), contact bleeding (during coitus/ defecation), infertility, vulvar pruritus, low back pain, dyspareunia, dysuria, nocturia and pollakiuria.[3][4]

Signs
On per speculum examination it is visible that bright red area surrounding and extending beyond the external os in the ectocervix, clearly demarcated outer edge, lesion with smooth surface/ having papillary folds and sometimes multiple oozing spot on rubbing with gauze piece[3].

Diagnosis
Cervical erosion is likely to be discovered during routine pelvic examination and Pap smear test (Pap test).[5]

Types[1]
1. Congenital
2. Acquired
   • Simple/flat type
   • Papillary type
   • Follicular type

Treatment
Persistent erosion with troublesome discharge should be treated surgically by electrocautery, cryotherapy, CO2 laser vaporisation, chemical cauterisation and conozation.[3] The resulting raw area takes 6-8 weeks to become covered with squamous epithelium. As coitus should be avoided until healing has taken place.

Garbhasayamukhagatha vrana
There is no classical reference for garbhasayamukhagatha vrana. But the basic references can used to define vrana at the garbhasayamukha and can be correlated with cervical erosion.

Nidana
1. Samanya nidana
   • Samanya nidana of vrana : Tridosha prakopa, agni, kshara, visha etc.[6]
   • Samanya nidana of yoniupapad : Mithya ahara-vihara, arata dushti, beeba dosha, daiva, coitus with purusha having pravrudha linga by a rooksha durbala stree (size disparity of sex organs), vishamasthaanga shayana(abnormal posture), bhrusha maithuna sevana (excessive coitus) and use of apa dravya.[7][8][9][10][11]

2. Vishishta nidana
Vishishta nidana of certain yonivyapad: Pitta-kapha-sannipatiki yonivyapad, karnini and acharana (Vipluta by Vagbhata)

Specific factors causing apanavayu dushti: Ruksha-guru anna, vegarodha, atisevana of yana, yanasaana, sthana and chankramana etc.\(^{[12]}\)

Structural deformity in artavavaha srothas and garbhasayamukha: Brusha maidhuna sevana, use of barrier methods of contraception, hetu of karnini yonivyapat ("Akale Vahamanayaa"), increased frequency of vaginal delivery, accidental injuries during assisted delivery (vacuum, forceps), D&C, Hysteroscopy, Hysterosalpingography etc. may also be considered as Vishishta Nidana.

**Samprapthi**

**Lakshana++**
- Yoni srava associated with pichilatwa in kaphaja vrana and dourgandhya in mithaja vrana.
- Yoni kandu
- Yoni dhaa
- Maithuna-asahishnuta
- Vedana - kati, adhonabhi and yoni
- Infertility
- Moothrashayagatha vikara

**Sadhya-asadhyavata**
Acharya Sushruta has mentioned the prajunana vrana as sukha sadhya vrana.\(^{[13]}\)

**Chikitsa**
1. Nidana parivarjana
2. Shashtri upakrama (Chikitsa) of Vrana\(^{[14]}\)

- Upto amavastha of vranasopha - The first twelve upakrama of Acharya Susruta, ie, from apatarpana to virechana are advisable.
- Manifested vrana - Vrana shodhana (dosha harana) as well as ropana therapies. The upakrama 22nd to 40th of Acharya Susruta (ie, sandhana to agnikarma) serve these purposes.

**Kshararaka**
According to Susrutha samhitha,

"vran gathra vichurnane, vranayathi iti vranaha" \(\text{Su.chi 1/6}\)
The term vrana indicates a discontinuity in the healthy tissue of body. There are 14 types of vrana based on dosha predominance. Among them, the cervical erosion may be correlated as the sannipathiki vrana.

Among all shastra and anushastra, kshara is the supreme because it is most effective and acts immediately. “Shasta anushastrebbhyah ksharah pradhanamatham chedayabhedyalekhyakaranaa tridoshagnatwath visheshakriyaavacharanananchaa” (Su. su 11/3)

Kshara is a caustic, alkaline in nature obtained from the ashes of medical plants. It is a milder procedure compared to surgery and thermal cautery. Kshara has the properties like ushna virya, laghu-teekshna guna, tridoshagna, dahana, pachana, darana, vilayana, shodhana, ropana, shoshana, stambhana, krimigna, and lekhana karma. It’s external application (pratisaraneeya kshara) is enough to manage the vrana along with internal medicines. In general it’s action can be correlated in this way,

- Cleansing the wound
- Antiseptic property
- Desquamation of sloughs
- Draining of pus
- New vascularization
- Granulation tissue formation
- Inpouring of proteins and fibrocytes for the formation of scars(fibrous tissue) to fill up the gap

II. DISCUSSION

In garbhhasayamukhagatha vrana, ksharakarma can be done by using kshara of apamarga (Achyranthes aspera Linn.), snuh (Euphorbia nerifolia Linn.), tankana (borax), tuttha (copper sulphate), yava (Hordeum vulgare) and udumbara (Ficus racemosa). [15]

Before doing any of these, the patient should be prepared by means of yoni kshatavana, yoni pichu, yoni kalkadharana etc. to reduce the inflammatory changes in the cervix.

There were a comparative study on the effectiveness of kshara and agni karma in the management of garbhhasayamukhagatha vrana. Ksharakarma was done by using snuhi kshara with yoni pichu with udumbarataila. It showed reduction of cervical erosion along with complete symptomatic relief (yonisrava, yonikanda, kateeshoola, vaginal pH and cervical tenderness). [16]

AsodhithaTattha kshara also effective in the management of cervical erosion especially in kaphapradhana condition. As the drug tuttha possess lekhana, sodhana, ropana, shothahara and raktaishodhaka properties, it worked efficiently and responsible for reducing size, appearance and degree of cervical erosion along with the symptoms like yoni srava and kandu. [17]

Usage of apamarga kshara followed by yoni pichu with jatyadi taila in garbhhasayamukhagatha vrana showed good relief from the same. It is due to the strong alkaline nature of apamarga kshara and it brought the destruction of superficial cells of eroded cervical area flowed by sloughing off of unhealthy tissue. [18]

In a comparative study of using jatyadi taila with and without apamarga kshara was performed and it showed that re-epithelialization of healthy squamous epithelium begins earlier where kshara used. The apamarga kshara was found strongly alkaline in reaction (pH = 10.44) and hygroscopic. It has

- pH = 10.44
- Acid radicals - Co3−, So4−, Cl−
- Phosphate - P2O5
- Basic radicals - Ca++, Mg++, Na+, K+, Fe+++ etc.

As its strong alkaline nature (pH = 10.44) was responsible for the corrosive action and re-epithelialization of squamous epithelium easily. [19]

Application of Yavakshara for two consecutive cycles for 7 days along with internal medication resulted significant reduction in amount of discharge, color of erosion and size of erosion. In addition to the ksharaguna, yavakshara has properties like chedana, bhedana and visheshha kriya avacharaana were worked. Examination on the 60th day showed 100% of healing and normal appearance of cervix. [20]

There was an intervention study with comparison of the effects before and after the study by using palasha kshara and tankana bhasma as prathisaranas in eroded areas. Palasha kshara is kshara shreshtha by Shodhal nighantu and tankana bhasma is mentioned under kshara varga in Rasatarangini. In effect both are equally effective statistically. But clinically, palasha kshara exhibited better results by acting on yonisrava and shula by its tikshna, ushnaguna, faster healing property. [21]

III. CONCLUSION

Modern treatment for cervical erosion is cauterezation & cryosurgery which have their own complications like bleeding per vagina and infection, secondary infertility, stenosis etc. [3]. That is why traditional system of medicines is getting valued. On conclusion, bahiparimaraja chikitasa by kshara facilitates enhanced drug effect for early and uncomplicated wound healing by this way.
PROPERTIES OF KSHARA

<table>
<thead>
<tr>
<th>ACTION</th>
<th>EFFECT</th>
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<tbody>
<tr>
<td><strong>Ushna virya</strong></td>
<td><strong>Pachana</strong></td>
</tr>
<tr>
<td>Kapha-vathahara</td>
<td>Pain/tenderness</td>
</tr>
<tr>
<td></td>
<td>Reduce the inflammation in lesser time (paka)</td>
</tr>
<tr>
<td></td>
<td><strong>Kapha-vathahara nissarana</strong></td>
</tr>
<tr>
<td></td>
<td>• Reduce yonisrava</td>
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<tr>
<td></td>
<td>• Reduce yoni</td>
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<tr>
<td><strong>Teekshna guna</strong></td>
<td><strong>Dushitha mamsaharana</strong></td>
</tr>
<tr>
<td>(Corrosive nature)</td>
<td>Destruction of columnar epithelium and thus promote the reepithelialization of squamous epithelium</td>
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<tr>
<td></td>
<td>• Draining of pus</td>
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<td></td>
<td>• Desquamation of sloughs</td>
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<tr>
<td></td>
<td>• Hence enhances the healing process (ropana)</td>
</tr>
<tr>
<td><strong>• Lekhana</strong></td>
<td><strong>Kushtagna</strong></td>
</tr>
<tr>
<td><strong>• Dahana</strong></td>
<td><strong>Tikta Rasa</strong></td>
</tr>
<tr>
<td>(Corrosive nature)</td>
<td>Reduces the vitiated kapha and pitha</td>
</tr>
<tr>
<td></td>
<td>Reduces yoni kandu</td>
</tr>
<tr>
<td><strong>• Kushtagna</strong></td>
<td><strong>Krimigna</strong></td>
</tr>
<tr>
<td><strong>• Tikta Rasa</strong></td>
<td>Destroy the infectious agent</td>
</tr>
<tr>
<td><strong>• Laghu-Ruksha Guna</strong></td>
<td>• Anti infectious</td>
</tr>
<tr>
<td></td>
<td>• Anti septic</td>
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<tr>
<td><strong>• Sodhana</strong></td>
<td><strong>Soshana</strong></td>
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<tr>
<td><strong>• Soshana</strong></td>
<td><strong>Kapha-pitha hara</strong></td>
</tr>
<tr>
<td></td>
<td>• Reduces yoni srava</td>
</tr>
<tr>
<td></td>
<td>• Reduces kleda</td>
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<tr>
<td><strong>Dosha vilayana</strong></td>
<td><strong>Dissolution of dushitha dosha</strong></td>
</tr>
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<td></td>
<td><strong>Samprapthi vighatana</strong></td>
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</table>

REFERENCES

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