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## LITERARY REVIEW OF CERVICAL EROSION

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### **Abstract:**

Cervical erosion is best correlated with KarniniYonivyapad in Ayurvedic classics. In Samhitas, all gynaecological disorders come under the Yonivyapada. Description of Yonivyapad has been described by all the scholars of Brihatrayee and Laghutrayee. Clinically cervical erosion is defined as development of red velvety area on the portio vaginalis the external os. Pathologically, cervical erosion is a condition in which the squamous epithelium of the ectocervix is replaced by columnar epithelium which is continuous with the endocervix. In cervical erosion the cervix is not eroded and there is no ulceration, the reason to make cervix look red and raw is that the columnar epithelium is much thinner than squamous epithelium and so underlying blood vessels show more clearly, making it look red and raw.

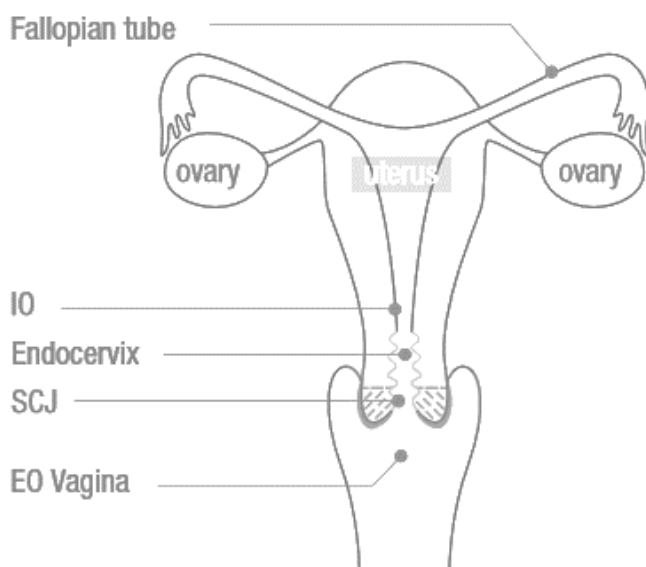
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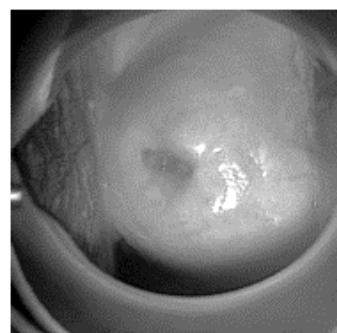
## INTRODUCTION:

Gynecology is a branch of medicine that deals with the diseases and routine physical care of the reproductive system of women. Reproductive health is a state of complete physical, mental and social well-being, and not merely the absence of reproductive disease or infirmity. Reproductive health deals with the reproductive processes, functions, and system at all stages of life. If a woman has cervical ectropion, it can be seen by the nurse during a cervical screening test (smear test) and the area appears red (because soft cells are red). Cervical ectropion can be caused by hormonal changes, pregnancy and being on the pill. It is not linked to the development of cervical cancer or any other condition that causes cancer.



EO: external os,  
IO: internal os,  
SCJ: squamocolumnar junction

Ectocervix – portio vaginalis and external os (EO) during the vaginal examination



*Anatomy of Vagina (Image Courtesy: Comprehensive Visual Inspection of the Cervix with Acetic Acid (VIA) and Lugol's Iodine (VILI) <http://www.gfmech/vic>)*

HE ectropion visible as a zone of redness and granulation about the cervical canal is variously described in text-books as eversion, erosion, ulceration, and outgrowth of the cervical mucosa. It is associated usually with one symptom, leucorrhoea, due not to the ectropion but to the associated and causative chronic endo-cervicitis.<sup>6-8</sup>

Various women health issues such as malnutrition ,morbidity ,maternal malnutrition affecting childs health ,breast cancer ,carcinomas, HIV/AIDS cardiovascular health ,mental health ,reproductive health etc.so lets take a look at one of the major female health problems i.e cervical erosion w.s.r Garbhashaya griva gata varan .

## DEFINITION:

Cervical ectopy is a condition where the squamous epithelium of the ectocervix is replaced by columnar epithelium, which is continuous with the endocervix.<sup>33</sup>

Cervical ectropion (also known as cervical erosion and ectopy) is a common condition caused when cells from inside the cervical canal, known as glandular cells (soft cells), are present on the outside surface of the cervix (neck of the womb).<sup>1</sup>

## ETIOLOGY:<sup>33</sup>

### 1. CONGENITAL:

At birth, in about one third of cases, the columnar epithelium of the endocervix extends beyond the external os. this condition persists only for a few days until the level of estrogen derived from the mother falls. Thus the congenital ectopy heals spontaneously.

### 2. ACQUIRED:

#### Hormonal:

The squamo columnar junction is not static and its movement, either inwards or outwards is dependent on estrogen. When the estrogen level is high, it moves out so that the columnar epithelium extends onto the vaginal portion of the cervix replacing the squamous epithelium.

This state is observed during pregnancy and amongst pill users,

#### Infection:

The role of infection as the primary cause of ectopy has been discarded. However, chronic cervicitis may be associated or else the infection may supervene on an ectopy because of the delicate columnar epithelium which is more vulnerable to trauma and infection.<sup>33</sup>

The one of the important erosion is discharge per vagina, the discharge however varies in character from mucoid to mucopurulent when associated with some infection enter through the columnar epithelium, because the columnar epithelium having less power of re-covering, the other symptoms which may be associated are contact bleeding or post coital bleeding, dyspareunia, pruritis vulvae, backache, lower abdominal pain, burning micturition, sicken psychological upset, infertility etc.

Vulvo vaginitis bacterial, candidiasis and trichomoniasis, are responsible for about 90% of infectious cases. This condition is characterized by vulvovaginal pain, itching and burning, a triad of symptoms for which women often seek medical help.<sup>10</sup>

Different works described cervicitis in women with term of mucopurulent cervicitis, infection caused by *C. trachomatis* and *N. gonorrhoeae*. To diagnose this disease were standardized criteria:

presence of purulent yellow, white blood cells per field to cytology, endocervical bleeding existence produced by erosion of the tissue.<sup>10-15</sup>

### **PATHOPHYSIOLOGY:**

Pathological vaginal discharge is very common among woman, especially of rural. White vaginal discharges along with the other symptoms like the feeling of weakness, pain in the back and calves, loss of vital fluids, the pruritis on and around the vulva, thighs, and pelvic joints etc., comes under the heading of Leucorrhoea and the most important cause of leucorrhoea is cervical erosion in these days.

Condition	Color	pH	Leukocytes	Whiff Test	Wet Mount
Normal	White	3.8-4.2	None	Negative	Negative
Bacterial vaginosis	Gray	5.0-6.0	Few	Positive	Saline: presence of clue cells
Candida infection	White	4.0-5.0	None	Negative	KOH: presence of hyphae
Trichomonas infection	Yellow-gray	6.0-7.0	Many	Positive or Negative	Saline: presence of motile protozoa

The causative organisms of bacterial vaginosis can cause diseases of the genital tract by releasing high as sialidases and mucinases enzymes that alter the mucosal barrier, decrease defense mechanisms of the cervix and vagina, increase the ability to invade and destroy tissues.

Classically diagnosis of bacterial vaginosis was based on the presence of 3 of the 4 Amsel criteria, these criteria are: presence of gray-white homogeneous flow, vaginal pH > 4.5, amine odor presence and the presence of clue cells microscopically because they are characteristic of the disease, although its diagnosis is sometimes difficult because it may mask by menstruation, recent intercourse or the presence of large amounts of mucus.

As uterine cervical ectopy, is a situation in which the squamous epithelium layers typically found in the vagina and are replaced ectocervix.<sup>21</sup> There are several arguments that would support the routine treatment for the disease, these include: sexually transmitted organisms such as Chlamydia, trichomoniasis and Neisseria gonorrhoeae preferentially infect the glandular epithelium.<sup>22</sup> Thus, exposing the cervical ectopia epithelium, favouring further infection. Moreover, consists ectopy epithelial secretion and this in turn is associated with an increase in mucus production, which is uncomfortable for women; other symptoms that are sometimes attributed to ectopia are pelvic pain and post-coital bleeding.<sup>32</sup>

The diagnosis of cervical ectropy or other clinical ailments like vaginitis and cervicitis provides an opportunity for the clinician to educate the patient regarding genital hygiene, the use of over-the-counter products, and safe-sex practices.

## **CLINICAL FEATURES:** <sup>33</sup>

Cervical ectropion is most commonly asymptomatic .it can occasionally present with post-coital bleeding ,intermenstrual bleeding or excessive discharge (non-purulent ).

Contact bleeding especially during pregnancy and pill use either defecation may be associated.Associated cervicitis may produce backache ,pelvic pain ,and times infertility .

On speculum examination:

The everted columnar epithelium has a reddish appearance –usually arranged in a ring around the external os.

The lesion may be smooth or having small papillary fold .it is neither tender nor bleeds to touch .On rubbing with a gauze piece. There may be multiple oozing spots (sharp bleeding in isolated spots in carcinoma).

## **DIFFERENTIAL DIAGNOSIS:** <sup>33</sup>

In cases of suspected cervical ectropion, other diagnoses to consider are cervical cancer, cervical intraepithelial neoplasia, Tubercular ulcer, cervicitis (inflammation of the cervix, typically caused by infection ) and pregnancy. These should be excluded using relevant investigation.

## **INVESTIGATION:**

Cervical ectropion is a clinical diagnosis .The main role of any investigation is to exclude other potential diagnoses.

### **Pregnancy test**

**Triple swabs:** If there is any suggestion of infection (such as purulent discharge), endocervical and high vaginal swabs should be taken.

**Cervical smear:** To rule out cervical intraepithelial neoplasia. If a frank lesion is observed, a biopsy should be taken (note that biopsies are not performed as routine).

## **USES OF APADRAVA:**

Use of foreign bodies (artificial objects made of iron etc) for attaining sexual orgasm by women comes under this grp. these may produce local ulceration, hyperaemia and infection etc. Resulting in excessive vaginal discharge & helping in harboring infective organism or injury which are responsible for Garbhashaya Griva Gata varana .

## **TREATMENT (CHIKITSA):**

### **ACCORDING TO AYURVED:**

In Ayurvedic texts, the emphasis has been given by various workers with different angles. Sushruta is of the opinion that sleeping in the day time, sedentary habits, salty, sour and cold things, and excessive use of liquids, beverages and the foodstuff producing abhishyandi effects are factors responsible for vitiating kapha.<sup>2</sup>

However, if other predisposing factors of Dosha-dushyasamurchhana at genital organ i.e. excessive coitus, coitus during menstruation, multiparity etc. is present, the disease of the genital organ may occur.<sup>3</sup>

According to Acharya Vagbhata, sweetish food stuff, cold environment, madhura, amla, lavana rasa containing diets also plays an important role in the vitiation of kaphadosha. Though these are the factors responsible for vitiating kapha, which may produce a disease anywhere in the body.<sup>4</sup>

Balyachikitsa also play important role to prevent the incidence and to treat the present disease.

Anti-inflammatory drugs also have important role in treatment of cervical erosion .

In Ayurveda route of treatment remedies are mainly of three categories as Antah- parimarjana ,Bahir –Parimarjana ,and Shastra –Parimarjana along with Nidana-Parimarjana is also considered .it can be Performed via local Shodhanadi treatment as Dhavana (douche) ,Avachurarnana (dusting )etc. In special condition, Shastra, kshara, Agnikarma are the choice of treatment.

Agnikarma is the according to Sushruth: the accessories like drug ,articles and other substances help ful in act of cauterization.

Ayurvedic treatment having the properties of lekhana, sodhana, ropana ,stambhana, kaphaghna can effectively cure this disease with this background kshara i.e.Apamarga Kshara and jatyaditail pichu is used for the treatment of this disease .

### **ACCORDING TO MODERN:**<sup>33</sup>

Cervical ectropion is regarded as a normal variant and does not require treatment unless symptomatic.

First –line treatment is to stop any oestrogen containing medications –most commonly the combined oral contraceptive pill. This is effective in the majority of cases.

Persistent ectopy with troublesome discharge should be treated surgically by – 1. Thermal cauterization 2. Cryosurgery 3.Laser vaporization

Medication to acidify the vaginal pH has been suggested, such as boric acid pessaries.

All the methods employed are based on the principle of destruction of the columnar epithelium to be followed by its healing by the squamous epithelium.

## AYURVEDIC CORELATION: <sup>34</sup>

Ayurveda has specified five cardinal points known as nidanapanchak for proper diagnosis of disease. These are nidan, purvarupa, rupa, Upashaya, and Samprapti.

Karnini can be compared with cervical erosion. In cervical erosion the cervix becomes somewhat hypertrophid, congested and covered with small red projection resembling sprouts (described by Indu), this erosion is often associated with nabothian cysts which are small pea sized smooth nodulas structures, thus due to presence of small sprouts the cervix assumes the shape of barbed wire or small brush and when associated with nabothian cysts then assumes to the pericarp of lotus.

KarniniYonivyapad can be put parallel to Cervical Erosion in modern medicine on the basis of different sighs & symptoms. By improving the general health of women and increasing personal hygiene, we can prevent the incidence of cervical erosion. Treatment of KarniniYonivyapad is mainly based on the use of drugs which are having predominance of Kashaya rasa and kapha-shiamak property. According to Acharya Charaka in chikitsasthana due to straining during labour in the absence of labour pains, the vayu obstructed by fetus, with holding kapha and getting mixed with rakta produces 'karnika' in yoni, which obstructs the passage of rakta (raja). Due to presence of karnika this condition is termed as 'karnini.

Acharya Sushrutauttarsthan 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.

Karniniyonivyapad is one of the vinshati yoni vyapad. Acharya Sushruta has named it as such while MaharshiCharak and Vagbhatta have given the name of karnikayonivyapad. Acharya Sushruta and MaharshiCharak both have the slight difference about etiology of the disease. Acharya Charaka and Vagbhatta described it as vata-kaphaja and Acharya Sushruta mentioned it as Kaphaja.

Cervical erosion can be considered as Garbhashaya Griva Gata Varana it resembles the features of varana explained in the classics .in Ayurvedic classics no direct description of Garbhashaya griva gata varana available ,but Ashtaga Sangrahas described it in reference of yoni vranekshana yantra .

Considering the features of cervical erosion ,it can be stated that it is usually nija/Agantuja ,Kapha -Pittaja ,Twaka-Mamsaja type of vrana which occurs at griva of Garbhashaya (cervix) .Acharya Sushruthahas devoted a special chapter for management of vrana which he has explained the management of doshaja vrana from the initial stage of varana shotha.

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