

Conceptual Study

Endometriosis - A Conceptual study

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ABSTRACT:

Endometriosis is a multifaceted disease that affects the quality of life of millions of women and their families worldwide. Its diagnosis is complex and treatment of associated chronic pelvic pain and infertility, which have evolved through multiple disciplines, have unpredictable and often limited effectiveness. Over the past 20 years studies on the pathogenesis and pathophysiology of the roles of steroid hormones, genetics, the environment, the immune system, in disease establishment progression and associated signs symptoms and co-morbidities^[1]. Endometriosis is associated with a broad range of symptoms including dysmenorrhoea, chronic intermenstrual pelvic pain, dyspareunia and infertility. The prevalence of endometriosis among women of reproductive age is in the range of 6-10%. It can be compared as a syndrome complex of *Paripluta Yonivyapad* in *Ayurveda*. Aim and Objective: The present work aims at understanding endometriosis in both allopathic and *Ayurvedic* perspectives. In this article, we have provided a comprehensive approach to the biology, diagnosis and treatment of endometriosis, as there is a need to collaborate modern medicine as well as *Ayurveda* to solve this problem.

KEY WORDS: endometriosis, *Paripluta Yonivyapada*, *Ayurveda*, *Dysmenorrhoea*.

INTRODUCTION:

Endometriosis, first described in 1860 by Von Rokitsansky is a chronic disease that is characterized by the occurrence of endometrial glands and stroma outside the uterine cavity. This endometriotic tissue responds to cyclical hormonal changes and therefore undergoes cyclical bleeding and local inflammatory reaction. Repeated bleeding and healing leads to fibrosis^[10]. This cyclical damage causes adhesions between associated organs causing pain. It is usually found in peritoneal cavity, predominantly within the pelvis, commonly on the uterosacral ligaments, umbilicus, abdominal scars, nasal passage, episiotomy scars and pleural cavity. It is the most common benign gynecological condition that is estrogen dependent and therefore it resolves after the menopause or when treatment is directed towards inducing a pseudo menopause. *Paripluta Yonivyapada* is one of the twenty *Yoni Vyapadas* mentioned in *Ayurvedic* classics. *Pitta* and *Vata Dushti* are characterized by inflammation of Yoni, tenderness, painful

menstruation, yellowish or bluish color of menstrual blood, pain in lumbosacral and groin region, backache and fever. *Sushruta*, says that the condition is characterized with severe dyspareunia, besides other pain and ache etc, caused by vitiated *Vayu* are also present. Both the *Vagbhatas* have followed *Charaka*, however they have included heaviness in the regions of bladder and lower abdomen, diarrhoea and anorexia etc also in the list of symptoms *Madhav Nidana*, *Bhavprakash* and *Yogratnakara* etc have followed *Sushruta*. In *Madhukosha* commentary it is explained that since, in the condition the features of *Vata* i.e. pain etc are present with extreme severity (*Pluta*) and all around (*Pari*) i.e. in entire internal and external reproductive organs, hence it is termed as *Paripluta*^[11].

Etiology-

According to modern science the precise pathogenesis of endometriosis is unclear, however, this disease may

occur because of the dissemination of the endometrium to ectopic sites and the resulting establishment of deposits of ectopic endometrium. The etiology of endometriosis remains debatable although there have been many theories:

a. Menstrual regurgitation and implantation :

Sampson's implantation theory postulates retrograde menstrual regurgitation of viable endometrial glands and tissue within the menstrual fluid and subsequent implantation on the peritoneal surface. Endometriosis is also found in women with genital tract abnormalities where there is obstruction to menstrual fluid. But this theory fails to explain endometriosis at distant sites^[10].

b. Coelomic epithelium transformation :

Meyer's coelomic metaplasia theory describes the de-differentiation of peritoneal cells lining the Mullerian duct back to their primitive origin which then transform into endometrial cells. This transformation into endometrial cells may be due to hormonal stimuli or inflammatory irritation. This theory explains endometriosis of abdominal viscera, recto-vaginal septum and umbilicus.

c. Genetic and immunological factors:

Genetic and immunological factors may alter the susceptibility of a woman and allow her to develop endometriosis.

d. Vascular and lymphatic spread:

Vascular and lymphatic embolization to distant sites has been demonstrated and explains the rare findings of endometriosis in sites outside the peritoneal cavity.

e. Direct implantation theory:

Endometrial or deciduas tissues start to grow in susceptible patients when implanted in new sites such as Hysterectomy scar, c-section scar, tubectomy and myomectomy scars and also at episiotomy scar, vaginal or cervical site. This theory fails to explain endometriosis at different sites can be explained by one single theory^[10].

There are three distinct forms of endometriosis:

1. Peritoneal endometriosis- Blood is irritant and can cause dense tissue reaction with fibrosis. This produces adhesions and puckering of endometrium.

2. Endometrioma - Blood may be encysted, serum gets absorbed and the remaining contents of the cyst become chocolate colored. This commonly occurs in ovaries thus forming chocolate cysts in the ovary.

3. A solid mass comprising endometriotic tissue mixed with adipose and fibromuscular tissue between the rectum and vagina i.e. rectovaginal endometriotic nodule^[9].

According to *Ayurvedic* classics the etiology of *Paripluta YoniVyapada* is as follows:

“पित्तलाया नृसंवासे क्षवथूदगारधारणात् । पित्तसंमूर्च्छितो वायुर्योनिं
दूषयति स्त्रियाः ।

शूना स्पर्शाक्षमा सार्तिनीलपीतमसुक स्त्रवेत् ।

श्रोणिवक्ष्णपुष्पार्तिज्वरार्तायाः परिप्लुता ॥ (च.सं.चि.३०/२३,२४)

Pittala - It means women having predominance of *Pitta* due to her *Pitta Prakriti* and consumption of diet which exaggerate *Pitta*.

Nrusamvase - Due to excessive coitus.

Shavthu-Udgar Dharanata: Suppression of natural urges, leads to *Vata Prakopa*^[11]

Maharishi Charka and *Vagbhatta* consider it as a *Vata-Pitta Vyadhi* while *Sushruta* has mentioned it as a *Vataja Vyadhi*. According to *Charaka* when *Pittala Stree* (i.e. women having predominance of *Pittaprakriti* or consumes diet which aggravates *Pitta*) withholds her natural urge of sneezing and eructation at the time of coitus, then the vitiated *Vata* due to *Vegavrodh* gets mixed with the vitiated *Pitta* of *Pittala Stree* , together they reaches *Yoni* (reproductive system) and produces its abnormalities i.e. it becomes inflamed and tender. She gets painful menstruation of yellowish or bluish color. Also, that woman suffers from pain in lumbosacral and groin region, backache, fever^[11].

Clinical features - 25% cases of endometriosis are asymptomatic classical clinical features are severe cyclical non -colicky pelvic pain restricted to around the time of menstrual loss. Symptoms associated with heavy menstrual loss.

Physical examination:

Endometriosis can be suspected by clinical findings on vaginal examination of thickening or nodularity of the uterosacral ligaments, tenderness in the pouch of Douglas, an adnexal mass or a fixed retroverted uterus.

Table No.1: Symptoms of endometriosis in relationship to site of lesion are as follows:

Site	Symptoms
Female reproductive tract	-Dysmenorrhoea -Lower abdominal and pelvic pain -Dyspareunia -Rupture/torsion of endometrioma -Low back pain -Infertility
Urinary tract	-Cyclical haematuria/ dysuria -Ureteric obstruction
Gastrointestinal tract	-Dyschezia(pain on defecation) -Cyclical rectal bleeding -Obstruction
Surgical scars/umbilicus	-Cyclical pain and bleeding
Lung	-cyclical haemoptysis -Haemopneumothorax

Table no.2: Symptoms according to various Acharyas of Pripluta Yonivyapada:

Acharya	Symptoms
Charaka	-Inflammation and tenderness of reproductive system -Backache -Fever -Dysmenorrhoea -Pain in lumbosacral and groin region
Sushruta	-Gramyadharme Rujabhrusham (dyspareunia) -Pain in surrounding region
Both Vagbhatts	-heaviness in the region of bladder and lower abdomen -diarrhoea -anorexia - Inflammation and tenderness of reproductive system -Backache -Fever -Dysmenorrhoea -Pain in lumbosacral and groin region
Madhavnidan, Bhavprakasha and Yograt-nakara	-pain with extreme severity in internal and external reproductive organs - Dyspareunia

Investigations:

USG- Transvaginal ultrasound can detect gross endometriosis involving the ovaries.

MRI-MRI can detect >5mm in size.

Laparoscopy- Endometriosis lesion can be red, puckered, black matchstick or white fibrous lesions.

It is a gold standard test for diagnosis of endometriosis^[11].

Preventive measures:

- Avoid tubal patency test immediately after or around time of menstruation.

- Avoid forceful pelvic examination just after menses.
- Avoid delay of first conception.

Management:

Patients with endometriosis are often difficult to treat, not only from a physical point of view, but also often because of associated psychological issues. Therapies designed for long term strategies should be used. Endometriosis is known to be a recurrent disorder throughout the whole of reproductive life and it is impossible to guarantee complete cure.

Medical therapy:

Analgesics- Non-steroidal anti-inflammatory drugs (NSAIDs) are potent analgesics and are helpful in reducing the severity of dysmenorrhoea and pelvic pain. However, they have no specific impact on the disease and hence their use is for symptom control only.

Combined oral contraceptive agents:

Oral contraceptive agents can be used for therapeutic purpose. Combined oral contraceptive agents should be prescribed to be taken continuously for an initial six month period, to render the patient amenorrhoeic. If symptoms of cyclical pelvic pain disappear, the diagnosis is mild endometriosis. If symptoms persist then there is likely to be coexisting irritable bowel disease which requires its own treatment of high fiber and adequate fluid intake. If there is symptomatic relief with the continuous use of COC, then this therapy should be continued indefinitely for up to several years or until pregnancy is intended.

Progestogens-

In these having risk factors for the use of COC, progestogens should be used. As long as amenorrhoea can be induced, symptoms related to endometriosis should be alleviated. The use of levonorgestrel intrauterine systems has been shown to be effective in achieving a long-term therapy effect, particularly after surgical treatment.

Donazol/gestrinone:

Ovarian suppressive agents, such as danazol and gestrinone are now not commonly used. Although effective, side effects, such as androgen effects, for example greasy skin, weight gain and once over long term use. Also alteration in lipid profile or liver function, limit their use.

Gonadotrophin-releasing hormone agonists:

These are as effective as danazol in relieving the severity and symptoms of endometriosis and less side effects. These drugs induce pseudo-menopause side effects include symptoms seen at menopause, such as hot flushes and night sweats. They are available in intranasal spray and slow-release depot formulations which lasts for one month. Long term (> six months) use can lead to osteoporosis which limits its use.

Surgical treatment-

Conservative surgery: Laparoscopic surgery such as diathermy, laser vaporization or excision has become the standard for the surgical management of

endometriosis. Endometriotic cysts should not just be drained but the inner cyst lining should be excised or destroyed. Recurrent risks following conservative surgery are as high as 30 percent and therefore concurrent long-term medical therapy is usually useful.

Definitive surgery: In women having severe symptoms, progressive disease definitive surgery for the relief of dysmenorrhoea and pain necessitates hysterectomy and bilateral salpingo-oophorectomy, which is usually curative. The removal of the ovaries is essential in achieving long-term symptoms relief. The commencement of combined HRT may be deferred for up to six months following surgery, particularly when active disease was found to be present at the time of laparotomy, to prevent activation of any residual disease.

Nonmedical treatments: The European society of human reproductive

The European Society of Human Reproduction and Embryology guidelines do not recommend the use of complementary or alternative medicine in treatment of endometriosis associated pain because the potential benefits and adverse effects are not well established. These treatments include neuro-modulators, nerve blocks, transcutaneous electrical nerve stimulation, acupuncture, behavioral therapy, nutritional supplements, reflexology, homeopathy, traditional Chinese medicine, herbal medicine, sports and exercise^[10].

Treatment of *Paripluta Yonivyapada*:

There is no specific treatment mentioned for *Paripluta Yonivyapada* in *Ayurvedic classics*, but according to *Dosha Dushti* the treatment is as follows:

Aacharya Charak and *Vagbhatta* has the same opinion,

“परिप्लुता वामिनी च वातपित्तात्मिके मते ।” (च.चि.३०/३९)

Both of them consider *Paripluta Yonivyapada* caused by *Vata* and *Pitta*^[5].

“सन्निपाते विनिश्रं तु संसृष्टासु च कारयेत् ।” (च.चि.३०/४३)

In *Sannipatta* and combination of two *Doshas* mixed treatment should be given^[5].

“बलाद्गोणद्वयनिर्युहे पयस्यासालपर्णीमागधिकाशतावरीकाकनासाश्रावणी

शर्कराजीवनीयगर्भ क्षीरचतुर्गुणं घृततैलाढकं साधयेत् ।

तत्पानात् सर्वान वातपित्तविकारानपोहति गर्भजननं च ॥”

(अ.सं.उ.३८/३३)

Ghee and oil mixed should be cooked with the decoction of *Bala* with the pasts of *Salaparni*, *Payasya*, *Jivanti*, *Vira*, *Rsabha*, *Jivaka*, *Sravani*, *Pippali*, *Mudgaparni*, *Piluparni*, *Masaparni*, *Sarkara*, *Ksirakakoli* and *Kokanasa*, along with four times milk. This should be used according to strength. It helps conception by destroying diseases caused by *Vata* and *Pitta*^[12].

According to *Sushruta Paripluta Yonivyapada* is a *Vataja roga*.

“प्रतिदोषं तु साध्यासु स्नेहदिक्रम इष्यते ।

दध्यादुत्तरबस्तिंश्च विशेषेण यथोदितान ॥”(सु.सं.उ.३८/२१)

In curable types, unctio n etc, should be done according to dosha. Particularly vaginal douches be given according to dosha.

Sushruta has told the following treatment for *Vataja Yoniroga*

1. Pitcher sudation mixed with meat of marshy and aquatic animals.
2. *Vesavara* mixed with sweet drugs and also oily tampon should be kept in vagina carefully.
3. Tampon soaked with oil processed with decoction of *Vata* alleviating drugs, other take *Balataila*. *Pathyani* - wholesome, processed with *Vata* alleviating drugs^[13].

CONCLUSION:

The primary objectives of intervention include the removal of endometriotic implants, nodules on cysts, restoration of normal anatomy, reduction of disease progression and symptomatic relief. Signs and symptoms of endometriosis matches with the *Pittaja Yonivyapada* in *Ayurveda*. Endometriosis is the presence of endometrium outside the uterine cavity. It is disease of theories. As per Ayurvedic view the genetic theory can be understood by *Beeja Dosha* and *Daiva*. As *Vata* and *Pitta* gets aggravated on there own reasons and together responsible for *Pittaja Yonivyapada* treatment should be *Vata Pitta Shamaka*. Treatment must be individualized and taken into consideration the impact of the condition on the quality of life.

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