A REVIEW ON INSIGHT TO ENDOMETRIOSIS AND ITS PREVENTION THROUGH AYURVEDA:
THE HIDDEN SUFFERING OF MILLIONS OF WOMEN

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ABSTRACT

Endometriosis is an underdiagnosed, underreported, and under research disease often labelled as the “missed disease”. It is defined as the presence of endometrial glands and stroma outside of their intrauterine location, most commonly in dependent part of pelvis. The only confirmatory method of its diagnosis is laparoscopy which is an invasive procedure. Medical therapies to it includes use of oral contraceptive pills, GnRH analogue, etc. which induce a hormonal steady state though having various side effects. Women suffering with extreme pain are offered laparoscopic removal of the implants. But the science of Ayurveda having a different perspective to diseases through Prakriti Parikshan, Dashvidha Pariksha, etc presents some possible screening method for ruling out the women which may develop endometriosis in future. Study of pathogenesis of endometriosis is done from the modern literature. After application of Ayurvedic principles, it is found that endometriosis is disease having Vat Dosha dominance and risk of developing this disease is more in women suffering from Arshagadhar, Udavartini Youivyapad, Soochimukhi Youivyapad and Antarmukhi Youivyapad. In the present article, a screening method is developed to identify the women prone to endometriosis by the application of Dashvidha Parikshan. Various Ayurvedic drugs which can be used to prevent endometriosis are also described.

Keywords: endometriosis, Vat Dosha, Youivyapad, Dashvidha Pariksha, Prevention

INTRODUCTION

Often dismissed as “women’s troubles” endometriosis affects one woman in ten of reproductive age yet a lack of research means sufferers can live in severe pain, unable to work, or socialise. It affects an estimated 176 million women around the globe and its extraordinary neglect causes many to suffer a life of pain, debilitation and infertility.

It is defined as presence of functioning uterine glands and stroma in any site outside the uterus. It has a unique proliferative growth process with a tendency to invade the surrounding normal tissue. It occurs in about 7.15% of women in reproductive age group. Its prevalence in women with infertility is 25%-30% and in women with pelvic pain is 40%-70%. In fact, 20-40% of infertile women have endometriosis and 40-50% of women with endometriosis suffer from infertility.

The exact cause of endometriosis is not clear. Combination of genetic, biological and environmental factors work together to trigger the initial process and subsequent reseeding and spreading of the endometrial implants. Various theories regarding the aetiology of endometriosis are proposed such as:

- Retrograde menstruation
- Immunological factors resulting in non-removal of menstrual debris and thus their implantation in pelvic organs.
- Induction of undifferentiated peritoneal cells to endometrial tissue by endogenous biochemical factors.
- Spreading of menstrual fragments to other sites in pelvic cavity through haematogenous and lymphatic spread.
- Metaplasia of peritoneum by some stimulus into endometrium etc.
- Among all the proposed theories the theory of retrograde menstruation is most accepted one.

Retrograde menstruation occurs during a woman’s period when menstrual tissues flows backwards through fallopian tubes rather than out through the vagina. Women with obstructive genital tract disease, long duration of periods and short menstrual length are predisposed to establishment of ectopic endometrium. It is estimated that more than 90 per cent of women have reverse menstruation thus it cannot be considered as the only factor for endometriosis. Other factors such as hormonal imbalance, immunological responses may also plays some part in the implantation of the endometrium in the sites mainly in the lower pelvis frequently in ovaries, cul de sac, uterine ligaments, pelvic peritoneum, episiotomy scar, hernia sites etc. The patients can be asymptomatic and if symptomatic presents as:

- Progressively increasing secondary dysmenorrhea.
- Abnormal menstruation such as menorrhagia, polymenorrhoea, polymenorrhagia, or premenstrual spotting, etc.
- Dyspareunia.
- Chronic pelvic pain due to inflammation in peritoneal implants.

The condition may be associated with endocrinopathies such as corpus luteal deficiency, luteinized unruptured follicle, anovulation, hyperprolactinemia, and thus causing infertility. Rupture and infection of the chocolate cyst resulting from...
significant ovarian involvement is another complication of endometriosis.

**Endometriosis in Ayurveda**

Ancient Acharyas of Ayurveda has their unique system of understanding Rogas and managing them on the basis of Doshas and Dushyas. Peculiar description of endometriosis is not found in Ayurveda as one single disease. Acharya Charaka said that there can be infinite types of Rogas and it is not possible to name each disease definitely but the disease which are described in the texts can give a clue to those unnamed entities. The disease of the female reproductive system is described under Yonivyapadas. There are total twenty Yonivyapadas mentioned by our Ancient Acharyas. Endometriosis can be explained on the basis of Doshas and certain gynaecological disorders mentioned by our ancient Acharyas.

Vata Dosha is the main responsible Dosha for removal of menstrual debris out of the vagina. There are three phases of menstrual cycle mediated by normalcy of three Doshas Viz. Vata, Pit, Kapha in each phase. Other factors such as Rasa, Rakta play the role of medium for action of Doshas on Rajawaha and Artavavaha Srotas. As soon as the Rajastaravakaal (bleeding phase) starts the Pitta Dosha increased during Rituvyatitkaal (secretory phase) starts decreasing and Vata Dosha starts increasing. Vata dosha works by stimulating Garbhashaya Sankoch (proper uterine contractions) during Rajastravara Kal (bleeding phase) to expel the menstrual blood outside the uterus towards vagina. There is also the beginning of Kaphachaya side by side due to Pittshaman. The disturbance of Vata Dosha hinders the flow of menstrual blood through vagina due to Vata Vaigunya (improper uterine contractions) and the menstrual blood if increased in amount due to Pitprakop in Rituvyatit Kaal (secretory phase) and Raja Dushti flows backwards in Artavavahastrotas towards fallopian tube to other pelvic organs. The endometrial tissues in the menstrual blood thus get implanted on the other pelvic sites by the action of Kapha Dosha whose one of the main functions is Vridhi (growth).

Some of the conditions mentioned in Ayurveda which aids to the pathogenesis of endometriosis are:

**Arsigdar**: It is the condition associated with excessive and prolonged bleeding during menstruation. Due to the consumption of Amla, Lavana, Vidaahi food, Vayu gets aggravated and this aggravated Vayu causing Rakta Dushti increase the quantity of Rakta and Raja resulting in excessive bleeding.

**Paripuluta**: it is characterised by excessive pain during coitus along with other pains related to Vayu. Dyspareunia is also one of the presenting features of endometriosis.

**Udavartini**: Suppression of natural urges results in aggravation of Apan Vayu which flows in reverse direction and pushes the Raja upwards causing severe dysmenorrhrea. 50% of women suffering with endometriosis have severe dysmenorrhea.

**Antarmukhi Yonivyapad**: includes obliquity of of Yoni due to indulgence in coitus in abnormal positions after consumption of food. The condition probably includes retroflexion/retroversion which is one of the factors associated with development of endometriosis.

**Suchimukhi Yonivyapad**: it involves excessive narrowing of the Yoni Mukha (cervical os ) along with pain all three Doshas. Narrow orifice causes obstruction to the normal downwards flow of menstrual blood and this it flows back in reverse direction.
Thus the predisposing factors to endometriosis in Ayurveda can be summarized as:

1. Congenital (Vatāla Ahaar Vihaar Sevan by Garbhini Stree)
   - Yoni Dushṭi of female child
   - Soochimukhi Yoniyaṇapad
   - Obstruction to the flow of menstrual blood.

2. Vikrat Ahaar And Vihaar (faulty dietary habits and environmental)
   - Production of Aam Ras and blockage of Srotas by toxins
   - Vatdosh Prakopa and Ruksh, Khar, Guna Vridhi
   - Poor nutrition to Dhatu
   - Decreased immunity

3. Vṛgdhvidhāraṇ (suppression of natural urges)
   - Udavartini Yoniyaṇapad
   - Backflow of blood
   - Retrograde menstruation

4. Coitus in abnormal positions and conditions
   - Antamukhi Yoniyaṇapad
   - Retroversion of uterus

5. Menorrhagia
   - Rajo Dhushṭi and Rakta Atimatra Vridhi
   - Atlasrak Stravana (excessive bleeding)
   - Vat Prakopa and Apane Vayu Vaigunya resulting in asynchronous uterine contractions which failed to throw out menstrual blood out of the vagina

Screening of Endometriosis through Ayurveda

Ayurveda has its own clinical methods for assessment of pathological conditions known as Dāshvidh Pariksha (tenfold examination). According to Acharya Charak patient should be examined in respect of Prakṛti (constitution of body), Vikruti (pathological examination), Sara (perfection of the body tissue / excellence of Dhatu), Samhāna (examination of compactness of body), Pramana (proportion may referred to as BMI), Satmya (suitability), Satva (examination of psychic constitution), Aaharashakti based on Jaran Shakti and Abhyavaharan Shakti (digestive power), Vyanumanashakti (strength by exercise) and Vaya (age of patient).

<table>
<thead>
<tr>
<th>Table 1: Screening Criteria For endometriosis</th>
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</thead>
<tbody>
<tr>
<td><strong>Dash Vidh Pariksha Bhāv</strong></td>
</tr>
<tr>
<td>1. Prakṛti (genetic constitution)</td>
</tr>
<tr>
<td>2. Vikruti (strength of pathogenic factors responsible for disease manifestation)</td>
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</tbody>
</table>
Prevention of Endometriosis

Ayurveda offers many drugs for prevention of endometriosis which works by their Balya, Deepan, Pachan, Vatanuloman, Shool, and Bhodhipakshi, etc. Properties. These drugs work possibly by correcting immune response, preventing excessive growth of endometrium and menorrhagia and maintaining hormonal level, stimulating proper uterine contractions for downwards flow of blood and preventing inflammatory reactions.

Bala
Latin name-Sida cordifolia
Family- Malvaceae
Properties:
The root of the drug is known as a good tonic and immunomodulator.

Ashwagandha
Latin name- Withania somnifera
Family-Solanaceae
Properties:
Ras- Katu,Tikta, Kahaya Guna – Laghu,Snigdha, Veerya – Ushna, Vipaka – Katu, Doshagnata – Vatpittahara ,Karma – Vatvdyadhi, rata, Premea nashak.8
The roots of Ashwagandha show significant anti-inflammatory and immunomodulatory activity.9

Madhuyashti
Latin name-Glycyrrhiza glabra
Family-Fabaceae
Properties:
Glycyrrhetic acid in it shows anti-inflammatory activity similar to hydrocortisosterone.11

Ashoka
Latin name-Saraca asoka,
Family- Ceasalpiniaease
Properties:
It is having styptic property and it exhibits potent oxytocin like activity.13
Ashoka stimulates proper uterine contractions to expel the menstrual debris out of the vagina. It checks excess bleeding per vaginum preventing menorrhagia which is one of the predisposing factor to endometriosis. It also cures dysmenorrhea.

Lodhra
Symplocos racemosa
Family: Symplocaceae
lodhra is useful in inflammation of uterus due to its anti-inflammatory effects. Lodhra helps in maintaining the ratio of estrogen and progesterone in the female body thus preventing menstrual irregularity.14

Eshwari
Latin name - Aristolochia indica
Family - Aristolochiaceae
Properties:
Aristolic acid in it exhibited antiestrogenic activity as shown by the prevention of estrogen induced weight increase and epithelial growth in the mouse uterus.16
It is one of the Garbhshaya Sankochaka mentioned by Acharya Priyavarta Sharma. Apaan Vasu Vignunata can result in improper and in coordinate uterine contractions in patients with Udavartini Yonivyapad. Eshwari can be used in such persons to direct downward flow of menstrual blood.

Anti-estrogenic activity - Alcohol seed extract of the Caesalpinia bonducella has anti-estrogenic property.18

Oestrogen influence is essential to development and continued activity of endometrium in women. Latakaranja may hinder the activity of ectopic endometrium probably by its anti-ostrogenic activities.

Ulakambal
Latin name – Abroma augusta
Family: Sterculiaceae
Rasa: Katu, Guna : Laghu, Rooshka, Virya : Ushna, Veepek: Katu
Kaphavatshamak, Garbhashayattejak, Artavajanana, Vedanasthapana19

The ethanolic extraction of leaves and stems of Abroma augusta Linn f. shows contractile action on the uterus. The aqueous extract of the roots showed oxytocic action. 20

Upakunchika
Latin name – Nigella sativa,
Family- Ranunculaceae

The volatile oil of N sativa inhibits the spontaneous movement of rats and guinea pig uterine smooth muscles and also the contraction induced by oxytocin stimulation.

It stimulates menstrual periods 22.

Jeeraka
Latin name – Cuminum cuminum
Family- Apiaceae

Jeerak and Upkunchika works as a Garbhashodhak clearing the endometrial debris properly during bleeding phase. Pacify alleviated Vat by their Vatanulomak properties and prevent formation of Aam Ras by their Deepan Pachaka Guna and thus helps in formation of Shudh Ras Dhatu and Raja.

Shatavari
Latin name – Asparagus racemosus
Family - Liliaceae
Properties: Rasa – Madhura, Tikta, Guna – Guru, Snigda, Veerya – Sheeta, Vipaka – Madhura, Doshagnata – Vatapitthahara, Karma – Shothahara, Rasayana, Netrta, Stanyavardhaka, Balya.24 It is usually found that translocated endometrial cells get implanted only in women with altered cell mediated immunity. Shatavari may work in prevention of endometriosis by modulating various immune responses by its antioxidant activity.

Pacifies alleviated vat dosha and pita dosha which are the main dosha involved in pathogenesis of endometriosis.

Kumari
Latin name – Aloe vera
Family: Liliaceae
Properties:

The aloe sterol includes campesterol, beta-sitosterol, lupeol, and cholesterol which are anti-in-flammatory in nature, helps in reducing the inflammation pain and act as a natural analgesic. Other aspirin-like compound present in Aloe is responsible for anti-inflammatory and antimicrobial properties. 26

RESULT AND DISCUSSION

Definitive causative factors, diagnosis and treatment of endometriosis is unexplained till now. Ayurveda categorises disease on the basis of Dosha involvement. Here also the risk factors and pathogenesis of endometriosis is tried to explain on the basis of Dosha dominance and their prakopas in different phases of menstrual cycles.

The risk factors of endometriosis discovered by various researches which can lead to implantation of ectopic endometrium can be explained on the basis of aetiology of various Stree Rogas described by ancient Acharyas associated with Sang and Vimargam in Artavavahastrotas leading to Rajovaigunya. E.g. Family history to endometriosis can be understood as Beedushthi leading to Suchimukhi Yonivyapad (obstruction in expulsion of menstrual blood).

Menorrhagia causing retrograde menstruation is best understood as Raktaadhihaya and increase Raja Matra leading to Appan Vayu Vigunata and Rajovaigunya.

There are no screening criteria developed till now for endometrosis. Patient presenting with menstrahragia (arsidgar), dysmenorrhoea (Udavartini Yonivyapad), cryptomenorrhoea, retroversion (antarmukhi yonivyapad) and infertility must go through Dashvidh Parishka for knowing their susceptibility of developing endometriosis in future. Prevention of endometriosis in these patients can be done by the use of Ayurvedic Drugs according to their Doshkarma and other properties in different phases of menstrual cycle. Drugs which are having Vatkaphashamak properties and are antioestrogenic can be used in bleeding phase and proliferative phase to prevent proliferation of ectopic endometrial tissues. VatKahpashamak drugs such as Ashoka and Lodhra also prevents menorrhagia due to increased endometrial thickness by preventing excessive growth of uterine endometrium. Drugs which are Artavpravartak, Garbhashayahodhak and Garbhshayasankochak such as Jeerak, Upkunchika, Ulakambal, Ishwari, Karanj, etc. can be used in bleeding phase to pacify Vat Dosha. Lodhra and Shatavari work on reproductive hormones and can be used in patients presenting with infertility. Aloevera and Shatavari works on altered immune response. Aloevera also prevent inflammatory reactions at the site of endometrial implants. Bala, Ashwagandha, Madhuyashthi, etc drugs can be used whole cycle to prevent inflammatory reactions and to receive better immune response to environmental toxins.

CONCLUSION

Detail study and review of literature reveals that though the direct description of endometriosis is not given in Ayurveda but there are different pathological conditions given by our acharyas which involves the features of endometriosis. The diagnostic criteria of our acharyas dashidhva Parikshan can help in screening of women who are susceptible to suffer from endometriosis and its prevention can be done by using various Ayurveda drugs after considering Dosha predominance in different phases of menstrual cycle.

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