



Review Of Endometriosis In *Ayurveda* With Special Reference To *Srotas*

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Abstract: Ectopic endometrial tissue growing outside the uterus is a gynecological condition known as endometriosis. It primarily affects women who are of reproductive age and is a significant contributor to infertility and pelvic pain. Dyspareunia, cyclic menstrual pain, persistent pelvic pain, and dyschezia are all endometriosis clinical symptoms that can negatively impact a patient's quality of life and health. Therefore, it is crucial that treatment begin as soon as endometriosis is clinically detected. In this review, we look at the possible causes of endometriosis present in the *Ayurvedic* literature and discuss approaches to effectively treating people with this ailment.

Key Words: Endometriosis, Genetics, *Prakriti*, and *Vata*

Aim: The purpose of this systematic review was to synthesize the qualitative research that was present in *Ayurvedic* texts in order to better comprehend the various facts of endometriosis and its correlation in *Ayurveda*.

Objective: 1. To thoroughly comprehend endometriosis by a review of *Ayurvedic* literature. 2. To learn more about the role of *srotas* in endometriosis 3. To comprehend the role of *srotas* in endometriosis from a clinical perspective. 4. To comprehend the pathology via *srotas* in endometriosis manifestation.

Need of study: The pathology involved in endometriosis is not well understood in modern science, despite the many theories that have been put forth. With the help of this article, we will attempt to explain its pathology, with special reference to *srotas* for a better understanding of its pathology and treatment in *Ayurveda*.

Material and Method Research articles and publications from both the modern and the *Ayurvedic* were used to review various aspects of endometriosis in connection to *srotas*.

Introduction:

Ayurveda is a science of life that dates back thousands of years. Its main goal is to maintain a person's healthy state, for which there are various protocols such as *dincharya*, *ritucharya*, etc. for maintaining physical health and *acharrasayan* for maintaining mental health, but in the modern era there is not enough time to follow all of these protocols, which causes many diseases. It is therefore necessary to educate people about leading healthy lifestyles and to offer personalized medicine.

The basic tenet of *Tridosha* in *Ayurveda* holds that *vata*, *pitta* and *kapha* lead to all bodily functions, and any increase or decrease in these leads to disease.¹

Body, mind, spirit, and senses are all considered to be a part of *ayu* (life). Each has been given the weight it deserves in terms of maintaining health and preventing sickness.² This is why Acharya Caraka said, "Leaving everything else, one should maintain the body, because everything available in the world is due to this body, if

it got destroyed nothing can be achieved from this world" Among these, the body is given the greatest importance because it is the primary aspect on which all other things are based³.

Ayurveda, which is primarily a medical science, placed a strong emphasis on having a thorough understanding of the body, as is shown from the statment

Experts strongly advise learning about the anatomy and physiology of the body because this knowledge provides insight for the therapy. Knowing these things will help your health.

The significance of srotas in in sustaining healthy physiology

The two primary Sanskrit roots "sru" gatau (SrawateetiSrugatau) + "sruribhayamsut" (Asunsutchā) are where the word "Srotas" originates. The verb "move" is present in gatau dhatu, and the neighbouring sut dhatu denotes the entity asun, or prana, which is the first and primary entity to move in a living body. As a result, the term indicates that srotas is the channel of the body, which provides space for locomotion for its related entity.⁴

Because vata, pitta, and kapha are all over the body, all of the body's channels are able to accommodate their demand for movement. Similar variables that are not visible to the senses. Only the parts of the body that are capable of sending out signals, such as the intellect, move. The body is healthy as long as these pathways of circulation operate as intended.

Typical ayurvedic causes of Srotodusti and endometriosis include the following:

The channels become vitiated by foods and practices that encourage the morbidity (aggravation) of doshas and are detrimental to the health of Dhatus (tissue elements). The general cause of the vitiation of channels is discussed below; dosas can only vitiate other channels when their amount is increased. They cannot vitiate others when their quantity is stable; instead, they simply show the symptoms that are brought on by their depletion.

Possible Srotodusti and endometriosis pathology are related by the increase or obstruction of the flow of the channels to contents, the development of nodules in the channels, and the diversion of the flow of the contents to the wrong channels. These are generally indications that these channels are contaminated.

MODERN THEORIES OF ENDOMETRIOSIS ⁽⁷⁾	OF AYURVEDA THEORIES ⁽⁸⁾
<p>(Sampson's theory) Retrograde Menstruation During menstruation, menstrual blood flows retrogradely through the uterine tubes. Endometrial fragments are inserted into the pelvic organs' peritoneal surfaces (dependent locations, such as the ovaries and uterosacral ligaments). Following that, natural ovarian hormones cause the endometrium at the ectopic locations to develop and shed in cycles. Endometriosis is not likely to result from retrograde menstruation.. Probably, a The expansion of the endometrial fragments depends on successful implantation and a favorable hormonal environment. While this idea can explain endometriosis in the pelvis, it is unable to explain endometriosis in other locations.</p> <p>Halban's hypothesis of lymphatics The draining lymphatic pathways of the uterus</p>	<p>This theory can be compared to <i>vimargagaman</i> theory of <i>srotodustilakshanin</i> <i>Ayurveda</i>.</p> <p><i>Vimarggaman</i>- It means abnormal flow of <i>tridosha</i>. When the flow in the <i>srotas</i> of <i>Tridosha</i> is abnormal, for e.g. <i>Vamana</i> is the upward movement through <i>Annavaahasrotas</i>, <i>Udavarta</i>, <i>mudhagarbha</i> are also example. The above said cause of <i>srotodusti</i> can occur singly or in combination resulting in diseases. Each disease may show single or multiple types of <i>srotodusti</i>. Obstruction of <i>srotas</i> (<i>srotosanga</i>) causes various clinical signs and symptoms for many diseases, <i>sanga</i> of <i>srotas</i> has been found to be the main cause. That's why the origin of all disease has been described as due to obstruction of <i>srotas</i>. In majority of instances, obstruction is the main cause of illness. This is followed in order of</p>

<p>may allow the normal endometrium to metastasis to the pelvic lymph nodes. This might explain why the lymph nodes were affected.</p> <p>Vascular Theory: This is plausible at least to explain endometriosis in locations other than the uterus, like the lungs, arms, or thighs.</p>	<p>frequency, <i>atipravrtti</i>, <i>srotogranthi</i>, and lastly <i>vimargagaman</i>.</p> <p>Likewise in endometriosis endometrial tissue moves to distant place or we can say follow abnormal pathway.⁽⁸⁾</p>
<p>(Meyer and Ivanoff) Coelomic metaplasia Menstrual blood may regularly irritate the pelvic peritoneum, leading to coelomic metaplasia and endometriosis. As an alternative, the peritoneum may include the remaining müllerian tissue. They might go through metaplasia and become endometrial.</p>	<p>Can be compared with <i>yonidustilakshan in ayurveda- Mithyachar,pradustaartava,beejadosha, daivakaran</i>.⁽⁹⁾</p>
<p>directly implanted The notion holds that when transplanted in new places, endometrial or decidual tissues begin to develop in susceptible individuals. These locations include the abdominal scar from a myomectomy, tubectomy, or hysterectomy. This approach also explains endometriosis at the episiotomy scar, vaginal, or cervical location.</p>	<p>Can be compared with <i>viddhalakshanof ArtavavahaSrotas</i>.⁽¹⁰⁾</p>
<p>biological and genetic aspects Less than 10% of people with endometriosis are likely affected by genetic factors. In first degree relatives, the incidence is 6-7 times higher. There is discussion about multifactorial inheritance. However, the ectopic tissue may only grow in aberrant locations in vulnerable women due to a deficiency in local cellular immunity.</p>	<p>Can be compared with <i>yonidustilakshan in Ayurveda- Mithyachar,pradustaartava,beejadosha, daivakaran</i> and with <i>yoni dustikaran and ojakhshaya</i>.⁽⁹⁾</p>
<p>According to environment theory, contaminants like dioxins can cause somatic mutations in cells. This hypothesis explains ovarian and deep infiltrating endometriotic lesions.</p>	<p>Explained by <i>desha kala</i> and <i>prakriti</i> in <i>Ayurveda</i> and epigenetics theory in modern sciences.</p>

SYMPTOMS OF ENDOMETRIOSIS AND THEIR POSSIBLE CORRELATION IN AYURVEDA⁽¹¹⁾

Symptoms of Endometriosis	Possible correlation in <i>Ayurveda</i>
Dysmenorrhea (70%)	<i>Vatala or Udavartha yoni vyapath</i>
Abnormal menstruation (20%)	<i>Pradara or Raktha yoni</i>
Infertility (40–60%)	Complication of <i>Yonivyapath/ Vandhya</i>
Dyspareunia (20–40%)	<i>Pariplutha</i>
Chronic Pelvic Pain	<i>VatalaYonivyapath</i>

Possible cause of endometriosis in Ayurveda:

Ayurveda suggests that foods and practices that encourage the morbidity (aggravate) of Dosas and work against the wellbeing of Dhatus (tissue elements) vitiate the channels as a potential cause of endometriosis. Dosas, the general cause of vitiation of channels, are only able to vitiate other channels when their quantity is raised. They cannot vitiate others when their quantity is decreased; instead, they simply show the symptoms that are brought on by their depletion.^[12]

Because every bhava in Purusha evolved from Srotas, according to Ayurveda, a person is healthy if Srotas continue to function normally. As a result, srotas are channels that transport the resulting Dhatus and are known in ayurveda as Dushya. Additionally, Vata, Pitta, and Kapha all reside in the srotas of the entire body. The Srotas play a crucial role in the Vyadhi because they prevent rogas from occurring when vitiated Dosas taking ashrya circulate in any of the Srotas. However, the Dosas impede at the location of the Srotodusti to bring about Vyadhi.⁽¹³⁾

Specific role of Vata in governing Artava or menstrual cycle:

Vata is in charge of menstrual blood discharge by directing circulating blood to uterine and endometrial arteries. Apanvay plays a significant part in the production and excretion of artava. Vata is a broad term for the neurological system, and it is well known that the hypothalamus regulates the menstrual cycle. A portion of the different endometrial changes that occur during menstruation can also be attributed to the nerves that enter the endometrium through artery walls. Vata has a significant impact on an individual's psychological makeup, which has a significant impact on maintaining a regular cycle. Therefore, it is clear that Apanvayu is in charge of both the beginning and the volume of menstrual blood.¹⁴

When the Sanchaya of the Dosas occurs at the same time, "Khavaigunya" occurs in the Srotas because the Srotas carrying the Rasa dhatu are also affected due to an increase in rasa. For instance, when food containing more Snigdha guna is consumed, it increases Kapha Dosa and when combined with the Sanchaya of Kapha Dosa, it results in snigdha throughout the entire body.

In this manner, the Sneha causes the Srotas to become coated and for their structural integrity to be vitiated. Vyadhi is brought about by the vitiated Dosha when it gets there. In this manner, the Sneha causes the Srotas' coating and structural vitiation. The birth of Vyadhi is brought on by the vitiated Dosha when it gets there.

Sanchaya of Dosas occurs when Dosaja Ahara-vihara is consumed. The Srotas are vitiated by these Sanchit dosas, and this vitiation occurs in the akashiya or khabhaga. This can be clarified by mentioning that the nutrient pathways of Dhatu are referred to as srotas. The vitiation of Srotas, which results in a narrowing of the Srotas' passage, is brought on by an increase in Dhatus. In this manner, the khabhaga of srotas only grows if the Rukshaguna are responsible for the sanchaya of Vata. Khavaigunya in srotas are responsible for several phenomena such as the expansion of the kha portion, the flow of dhatu in srotas, the sporadic deposition of foreign elements in the khabhaga, etc. The stage of vikrti or srotodusti takes place and creates roga there and only there when the vitiated dosas circulate across the entire body. This stage is referred to as Sthansansraya Avastha or Dosa-Dushyasamurcchana.

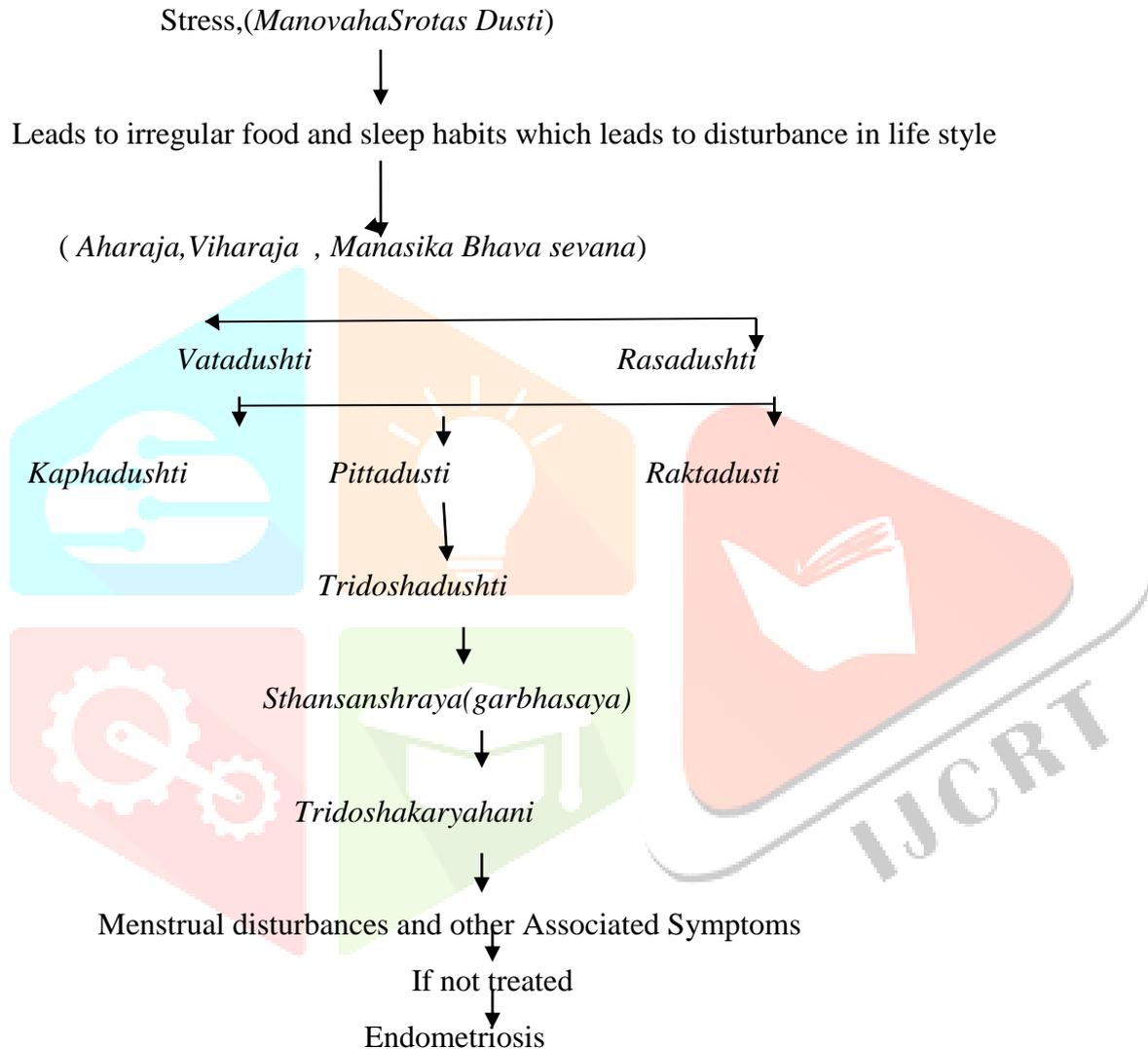
According to the source mentioned above, Srotodusti cannot occur without Khavaigunya. When Srotodusti occurs, acarya Caraka observes, it also results in Dusti of the Dosas and Dhatus dwelling in the Srotas.

The other Srotas and Dhatus are vitiated by the Dusti of the Srotas and the living Dhatus in the Srotas. Additionally, a vitiation in one Srota or Dhatu induces vitiation in other Srotas or Dhatus. Only the three Dosas—Pitta, Kapha, and Vata—can vitiate all Srotas and Dhatus.

The samprapti of endometriosis had not been described in text as seen but it can be understood in following flow chart-

SAMPRAPTI¹⁵

Due to *dustahara –viharasevana*, *vatadushti* occurs further due to *manasikabhavachinta* causes *Rasadushti* which leads to *uttrotardhatudushti* i.e. *Raktadushti* and also is *maladushti* i.e. *kaphadushti*. Further *Raktadushti* will add to *Pittadushti* so overall resulting into *Tridoshadushti*. Here their normal function is hampered resulting into *Avayavakaryahani* i.e. menstrual disturbances and other associated symptoms and ultimately leads to endometriosis.

**SAMPRAPTI GHATAKA:**

<i>Dosha</i>	:	<i>Tridosha</i> with predominant <i>Vata</i> (mainly <i>apan</i> and <i>vyanvayu</i>)
<i>Dhatu</i>	:	<i>Rasa, Rakta</i>
<i>Updhatu</i>	:	<i>Artava</i>
<i>Srotasa</i>	:	<i>Artavavahasrotas</i>
<i>Srotodushti</i>	:	<i>vimargagaman</i>
<i>Udbhavasthana:</i>		<i>Pakvashaya</i>
<i>Adhithana</i>	:	<i>Yoni</i> (Garbhashaya)
<i>Marga</i>	:	<i>Abhyantara</i>

Possible Treatment:

Srotas are a component of samprapti, and chikitsa is the breakdown of samprapti. Therefore, understanding srotas is crucial for treatment.

Srotomukhavishodhan is crucial for the dosha to move from sakha to kostha during the treatment of shakhagatadoshas.

In literature, specific srotas are used to discuss the causes of disease and how to treat it. There is no single site where menstruation diseases in ayurveda have been discussed. They have instead been covered in ayurvedic treatises under many names, including rituvyapad, ashtartavadushti, artavadhatuvridhhi-kshayalakshanas, nashtartava, asrigdara, vinshatyonivyapads, etc. For instance, the term "artava" has been used in the ayurveda texts to describe not only monthly blood but also ovum, factors involved in the development of embryonic sex, female ovarian hormones, excretions after coitus, and bleeding during pregnancy. Their precise significance must be interpreted in light of the context¹⁷

The goal of panchakarma is to preserve the body's homeostasis, which is necessary for a disease-free body, and to bring the three bodily humors—Vata, Pitta, and Kapha—into harmony. Therefore, Panchakarma is an old but effective cleansing therapy created to lessen the toxic substances, or what is known as ama in Ayurveda, the body that cause diseases and change the healthy state of the body. Panchakarma The finest way for body healing and purification is For the prevention of disease and aging, panchakarma is essential. The body often purges itself by eliminating waste materials, including the vitiated dosha. However, the digestive enzymes, metabolic co-factors, hormones, and agnis that control the body's internal homeostasis become disorganized as a result of one's repeated mithyaahar and viharor, or poor lifestyle and genetic predisposition. This may cause toxins to build up and spread throughout the body, which may cause sickness. In Ayurveda, this waste material is known as ama. Ama is a toxic substance that must occasionally be entirely expelled from the body since it is unpleasant-smelling, sticky, and dangerous. When we clean the artavavahasrotas in the same way, the diseases that are connected to it also go away.

Conclusion: In terms of symptoms and pathology, there is no disease in Ayurveda that is exactly like endometriosis. Ayurveda, however, has its own classification and disease-diagnosis guidelines. According to CharakSamhita, even if a doctor is unable to identify a specific sickness, his attempts to treat it will always succeed provided he is aware of the Dosha, location of manifestation, and nidana (causes) of the disease. According to the various symptoms Endometriosis manifests in patients, we can compare it to vatic yoni vyapad, Udavarta, Granthi, Gulma, and Visarpa, among other things.

This ailment, according to Ayurveda, is brought on by a disturbed or changed Vatadosha. Mostly "Apanavayuvikara" and "vyanvayu." Apanavata, a subtype of Vatadosha, is in charge of the downward evacuation of menstrual blood, feces, urine, and flatus. Retrograde menstruation is brought on by apanavataobstruction, which also causes endometrial tissue to build up or shift into extra uterine surfaces including the fallopian tubes and pelvic cavity. Often accompanied by excruciating pain and scanty menstruation, irritated vata dosha is to blame; aggravated pitta dosha is to blame for copious bleeding and a burning sensation; and aggravated Kapha dosha is to blame for heavy, lethargic feeling, slimy mucus bleeding, and clots.¹⁴

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