

Endometriosis:
A Holistic Approach

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I. Introduction

There are many problems in our society surrounding the oppressive notions that attempt to box people into the narrow definitions of gender and while I do not aim to discuss these in this report, I acknowledge these issues. It is especially relevant to note this in the case of endometriosis as it is a gendered disease commonly thought to only affect “women,” which is simply not true. This leads to a highly exclusionary community of people who leave out transgender individuals and in rare cases, men, who also experience endometriosis and often have an even tougher time getting the diagnosis and treatment they need.

Endometriosis is an estrogen dependent chronic inflammatory disease in which tissue similar to that found in the lining of the uterus grows outside of the uterus. This lining, known as the endometrium, is the soft and spongy inner layer of the uterus. Throughout the menstrual cycle hormones are released to stimulate the growth of the endometrium in order to prepare for a potential pregnancy. These hormones also stimulate the ripening of an ovarian follicle (sac-like structures that contain eggs), to release an egg to be transported through the fallopian tube and into the uterus, which becomes spongy and well nourished with blood. If the egg is not fertilized within about twenty-four hours of being in the uterus, the endometrial lining will begin to breakdown and shed to be passed down through the vagina during menses [1].

In the case of endometriosis, the extrauterine tissue found growing outside of the uterus contains glands and stroma similar to that of the endometrium and responds to hormonal stimuli in a similar manner. When hormones cause the uterus to shed its endometrial lining, endometrial tissue outside of the uterus will also breakdown and shed but instead of leaving the body during menses, there is no way for it to exit the body and must therefore be absorbed by the surrounding tissue. The process of absorption is slow and can be painful as blood easily accumulates in cavities of the body and can cause inflammation of the surrounding tissue. This can lead to the formation of scar tissue and can impair the function of the part of the body in which the tissue is growing.

Growths of endometrial cells outside of the uterus occur most commonly in the deep pelvic peritoneal cavity, also known as the cul-de-sac (the cavity between the rectum and the posterior wall of the uterus in the female body). They also occur in or on the ovaries, the fallopian tubes, the urinary bladder, the pelvic floor, the peritoneum (the membrane lining the walls of the abdominal cavity, and the bowel. In rare cases, endometriosis can appear outside of the pelvis in the diaphragm, the pericardium, the tissue of the lungs, and even in the brain [2][3]. The growth of this tissue can cause inflammation, blockages, and various problems in the area they are growing in or near. After time, the extrauterine endometrial tissue can grow larger and spread to other areas forming localized scar tissue and adhesions attaching to pelvic organs and binding them together. Endometriosis can cause the formation of cysts, often containing oxidized blood. These cysts appear in the ovaries and are referred to as “chocolate” cysts as the inner fluid resembles chocolate syrup. If ruptured, they can cause horrible pain.

Endometriosis affects 6-10% of reproductive age women and approximately 35-50% of adult and adolescent women with pelvic pain and infertility [5]. This means roughly that 1 in 10 women of reproductive age (usually between the ages of 15-49) are affected by endometriosis and it can start as early as menarche. In some cases it is a mild condition that can resolve on its

own. Menopause may or may not resolve symptoms depending on if the person has scar tissue or adhesions from either the disease and/or surgery. While endometriosis symptoms can sometimes be relieved by drugs and/or surgery, there is no cure and most of the drugs prescribed cannot or will not be used long-term due to side-effects.

II. Symptoms and Long Term Effects

Endometriosis is notoriously hard to diagnose as there are no pathogenic symptoms of the disease. While some individuals have severe symptoms and pain, others could have little to none. Many discover they have the disease when they are unable to become pregnant or through a procedure done for another reason. The type and severity of symptoms are usually related to the location of the extrauterine tissue rather than how much of it there is. Approximately 75% of those with endometriosis experience pelvic pain and/or pain associated with their menstrual cycle and therefore it is a key symptom of the condition. The pain can occur: immediately before and during one's period, during or after sex, in the abdomen, back, or pelvis, with bowel movements or gas, and/or during ovulation.

Bleeding is another symptom of endometriosis and affects the cycle in the form of: heavy bleeding during the period with or without clotting, irregular bleeding or bleeding longer than usual, and/or spotting in between cycles.

Symptoms of endometriosis can also affect other aspects of the body and its functions including: bleeding from the bowels or bladder, switching between constipation and diarrhea, an urge to urinate more frequently than is typical for that person, and/or bloating in the abdomen with or without pain during the time of the period [6].

Given to the relationship between endometriosis and the hormonal cycle, many individuals find that pregnancy can relieve the symptoms due to interruptions in the hormonal cycle. In some cases the relief is presumably permanent and symptoms subside entirely but in other cases, once the hormonal cycles return to normal the symptoms of endometriosis return as well.

While benign and rarely life threatening, endometriosis can lead to other long term health problems. Issues surrounding gender mixed with the complexity of endometriosis lead to the rise of commonly held myths and misconceptions that cause the disease to often go undiagnosed and untreated. Those living with endometriosis often experience a severe impact on their physical, mental, and social well-being that can affect every aspect of their lives. Still today pain associated with the menstrual cycle is a taboo subject carrying old beliefs from days past when "women's problems" were viewed as nothing more than hysterias due to the preconceived notions of their "delicate and unstable" physical and mental constitutions. Far too often doctors are reluctant to address symptoms of endometriosis and disregard the symptoms as "part of a normal cycle" and women are told that the pain they experience every month is a just part of

being a woman, that it is all in their head, or that they have a low pain tolerance¹[7]. This leads to the disease often going untreated and manifesting as more serious issues, including the development of cysts, infertility, breast and ovarian cancers, as well as long term physical and psychological effects on their daily lives.

III. Theories on Cause and Risk Factors

There is no widely acknowledged cause of endometriosis and although theories of various causes are prevalent, none of them effectively explain all of the factors involved in the development of the disease. There is general consensus between researchers studying endometriosis that it is exacerbated by the presence of estrogen and consequently most of the allopathic treatments attempting to target endometriosis strive to modulate estrogen production in the body in an attempt to relieve symptoms. This approach does not get to the root of the disease, nor does it take into account the individual person and their constitution, and therefore can only go so far.

Retrograde Menstruation

The retrograde menstruation theory, developed in the 1920s by Dr. John Sampson, suggests that menstrual fluid flows backward up into the fallopian tubes moving into the pelvic cavity where endometrial cells implant and grow. While this theory can explain a potential cause of the disease, it has not been proven. This theory is challenged given research concluding that 76-90% of menstruating women have retrograde flow. It is further challenged in the presence of cases where endometriosis has developed in women who have had a hysterectomy or tubal ligation. There have even been rare cases in which men who are treated with estrogen following prostate surgery have also developed endometriosis [9].

Environmental Factors

Although not often discussed in-depth as contributing factors to endometriosis, environmental factors have been shown to correlate with the disease in multiple studies. One specific factor is the prevalence of dioxin, a strong teratogen and carcinogen found in the environment as a byproduct of pesticides, herbicides, the bleaching of paper pulp, and smelting. Dioxins include a broad range of chemicals including polychlorinated dibenzo dioxins (PCDDs), polychlorinated dibenzo furans (PCDFs) and, polychlorinated biphenyls (PCBs). Dioxins are used in the bleaching of tampons and sanitary pads including those that use “chemical-free bleaching” as these still use chlorine dioxide as the primary bleaching agent. Unless these items are certified organic, there is still the potential for trace amounts of dioxins [12].

In one study researching dioxin concentrations in individuals with endometriosis, there was found to be an increased rate of the toxin in those with the disease. Forty-four infertile women with endometriosis and thirty-five age matched women with tubal infertility were tested

¹ A normal menstrual cycle is defined as occurring every 25-35 days and should be consistent in length and not fluctuate month to month. Menstrual blood should be bright red in color and not dark red, brown, or clotty. PMS and/or pain is *not* a normal part of the menstrual cycle and cramping should not be a regular part of menses. Any of these symptoms could be a sign of a hormonal imbalance or a condition, like endometriosis, that needs to be acknowledged and dealt with. The monthly period can be understood as a monthly report card of the health of the body.

for levels of dioxins in their blood. The results concluded that eight women, or 18%, with endometriosis had blood levels of dioxin, compared to one woman, only 1%, in the control group without endometriosis. This study describes the relationship between dioxin and the reproductive system as a result of the chemical's ability to alter estrogen, progesterone, and prolactin receptor activities as well as inhibit T lymphocyte function. Dioxin is also able to mimic estrogen by interacting with estrogen receptors. Given the notion that the etiology of endometriosis is highly complex, the presence of dioxin could indicate an affected immune system, or an imbalance of hormones. Although this study did not find a correlation between the severity of endometriosis and dioxin levels in the blood, it is one of many linking the disease to dioxin positive individuals [11].

Hormones

Within many theories discussing the potential etiology of endometriosis, hormonal imbalance is an underlying factor that itself can be caused by a number of factors. As an estrogen dependent disease, hormone levels play a critical role in the scope of the disease. Estrogen is responsible for cell growth and therefore the proliferation of the endometrium and excess estrogen can lead to abnormal cell growth. Connected with the theory of environmental factors being a potential cause for the disease, humans are surrounded by an increasing number of excess estrogens as a result of industrial, agricultural, and chemical companies pouring them into the environment. Much of this excess estrogen comes from xenoestrogens, a xenohormone that is able to mimic estrogen in the body. Xenoestrogens are a category of Endocrine Disrupting Compounds (EDCs) which are able to disrupt communication between the endocrine system and the organs producing hormones in the body. This results in what is known as estrogen dominance and is being observed in the rise of various estrogenic symptoms displayed in people of all ages and genders [13]. Given these factors it is no wonder there are increasing rates of endometriosis in not only women of reproductive age but also in very young girls. Before 1921, there were only twenty-one cases reported of the disease in medical literature [14]. This number has been steadily rising since World War II and today has now risen to one in ten women of reproductive age developing the disease.

Immune Dysfunction and Stress Factors

Another proposed theory of the etiology of endometriosis is a defective or malfunctioning immune system, as in the cause of autoimmunity. Some studies have observed autoimmune disease to be more common in individuals with endometriosis. In these examples, women with endometriosis were found to have a higher concentration of activated macrophages, decreased cellular immunity, and repressed natural killer cell function [3]. The role of the immune system in the etiology of endometriosis may also be linked to oxidative stress and could pair immunological factors with inflammatory factors. One study presented evidence of the relationship between stress and endometriosis and showed an increase in mast cells that contribute to an abnormal immune response, similar to other inflammatory diseases [23].

Sexual Abuse

Sexual abuse comes up often in the discussion of endometriosis and given the staggering statistics that 1 in 5 women will be sexually abused in their lifetime and 1 in 10 women has endometriosis, a potential relationship between the two can be posited [22]. Sexual abuse undoubtedly causes stress and inflammation manifested in the body both physically and

psychologically. Given that endometriosis is an inflammatory disease and stress has been studied and proven to exacerbate inflammation in the body, it can be theorized that sexual trauma could play a role in the development and severity of the disease. However, the sexual abuse theory often leads to misconceptions within the medical community concerning endometriosis and the consequent dismissal of the disease and its very real symptoms. These misconceptions can lead to victim blaming and a misunderstanding of the disease. While it is important to highlight the potential relationship between the disease and sexual abuse, it must be approached with care.

Genetic Predisposition

It is estimated that those who have a close family member with endometriosis are 7-10 times more likely to develop the disease [6]. In cases where this has been studied, it was also found that in the presence of a hereditary link the disease can worsen in the following generation. One study identified DNA variations that can predispose certain individuals to endometriosis. They concluded that “moderate-to-severe endometriosis is significantly more genetically driven than minimal-to-mild disease” [10]. This study was done on women of European ancestry and thus can potentially only speak to cases of a similar ancestry.

Role of the Lymphatic System

In more severe cases of endometriosis in which endometrial cells travel to distant places in the body such as the lungs or brain, it is theorized that the lymphatic system plays a role. These cells may be able to travel through the lymphatic system or through blood vessels and end up in other parts of the body [9].

Metaplasia

Some researchers believe endometriosis to be the result of metaplasia, the abnormal change in tissue, and in the case of endometriosis, the abnormal transformation of extrauterine cells into endometrial cells. This transformation is thought to either be stimulated by hormonal or immunological factors, or to have originated in the embryonic stage during which the uterus is first forming. In some cases of the latter, adult cells may retain their ability to transform into endometrial cells later in life [3].

Other Theories

Endometriosis is closely linked to other conditions including candidiasis and interstitial cystitis. Considered the “evil twins” of chronic pelvic pain syndrome, endometriosis and interstitial cystitis often accompany one another, yet both are commonly under diagnosed [24]. It has also been observed that women with endometriosis have higher instances of candidiasis than those who do not. This is important as candida overgrowth can cause micro-perforations in the uterus which can give extrauterine endometrial cells more places to grow [17].

In Traditional Chinese Medicine, endometriosis is considered a blood stasis syndrome resulting in the formation of endometriotic lesions caused by a number of factors affecting the reproductive system. Many herbalists and other holistic health care practitioners consider the disease to be multifactorial in nature and as such cannot always be treated in the same manner but requires individual treatment plans.

IV. Diagnosis and Treatment

The primary method to diagnosing endometriosis is through a laparoscopy, a procedure in which a lighted instrument, called a laparoscope, is inserted into the abdominal cavity via a small incision near the belly button in order to view the pelvic organs. Diagnosis and removal of endometrial tissue can take place during the same procedure. The removed tissue is then sent to a lab for biopsy in order to confirm the presence of endometriosis. Doctors can speculate on the presence of endometriosis through pelvic exams or ultrasounds however, these methods are primarily able to determine the presence of cysts which may or may not be related to any indication of endometriosis.

There are currently no methods used capable of predicting the future prognosis of the disease stage from an initial surgical diagnosis [4]. The laparoscopic method of both diagnosis and treatment and the subsequent result is highly dependent upon the skill and experience of the surgeon. The procedure can relieve symptoms of the disease for a time period, depending on how much tissue is removed and/or left behind, however it will not cure what is causing the disease.

In the allopathic field of study, endometriosis is primarily treated through hormonal drug therapies. Because the disease is exacerbated by estrogen hormonal treatments are used as an attempt to control estrogen production in the body through the suppression of a monthly period. The medications also aim to shrink the endometrium as well as the lesions from the disease. None of the medications come without side effects nor do they cure the cause of the disease, instead they are only able to alleviate pain and other symptoms, sometimes for only a period of time.

Birth Control Pill

The oral contraceptive pill is the primary treatment method. There are many different types of contraceptive pills each containing a varying combination of synthetic estrogen and progesterone. These drugs artificially alter the body's natural hormones preventing ovulation and therefore menstruation while attempting to inhibit the growth of endometrial implants. This treatment method is inexpensive and while it can be taken for a number of years, it does not come without side effects those of which some women may experience more severely than others. Irregular vaginal bleeding, nausea, depression, weight gain, and headaches are all common side effects that may be experienced within a short time of taking the pill. Studies done on the long term side effects of taking birth control pills have found an increased risk of breast and cervical cancers as well as Human Papilloma Virus (HPV). Problems with the heart and circulation leading to an increased risk of stroke, heart attack, and blood clotting have also been observed, especially in those who smoke or have smoked. Other side effects consist of severe abdominal pain, chest pain, visual disturbances, and severe pain or swelling in the legs [15].

Progesterone and Progestin

Progestins are a group of drugs designed to mimic the female hormone progesterone in the body. These can be taken as a pill, via an injection, or through an intrauterine device and work to reduce a woman's period or stop it entirely. Although it is not clearly understood how these medications relieve symptoms of endometriosis, it is believed progestins work by somehow suppressing the growth of endometrial implants and causing them to eventually waste away while reducing inflammation in the pelvic cavity caused by the disease. They have been

found to control symptoms of pain in three out of four women but were not found to relieve symptoms entirely. Usually progestin treatments are used in lengths of three to six months, although some treatments are used for longer, and repeat treatments are common. The levonorgestrel intrauterine system, commonly known as the Mirena coil, is a small plastic T-shaped intrauterine device that contains progestogen, a synthetic form of progesterone, that is released into the uterus over a period of five years. As well as progesterone related side effects, the Mirena IUD poses other potential risks including the development of ovarian cysts. The side effects from taking progestins vary from drug to drug and are common as most women tend to experience at least one or two side effects, if not more. Some primary side effects include: acne, bloating, breast tenderness, bleeding between periods, depression, dizziness, fluid retention, headaches, fatigue, mood swings, nausea, prolonged bleeding, vomiting, and weight gain [16].

Other Hormonal Treatments

GnRh-agonists are a group of drugs containing a modified version of gonadotropin releasing hormone that acts on the hypothalamus-pituitary-axis to control hormone release. These medications act to stop estrogen production in order to deprive endometrial lesions of the hormone and come in the form of injections—monthly or daily—and nasal sprays. Side effects of GnRh-agonists are common, many women finding them too severe. Due to the depleted levels of estrogen these drugs cause the body to go into a false menopause. Along with common symptoms of menopause such as hot flashes, other side effects include insomnia, headaches, mood swings, vaginal dryness, depression, acne, decreased libido, and muscle pains [16].

Danazol is one of the least common medical treatments employed for endometriosis. It is a synthetic androgen (male hormone) that works by creating a hormonal environment in the body in which menstruation does not occur. Estrogen levels drop as androgen levels rise. While being able to effectively treat some symptoms of endometriosis for a period of time, many women discontinue treatment due to the side effects which include increased body hair and acne as well as weight gain [16].

Due to the multitude of side effects accompanying hormonal treatments, these medication are limited in use especially in adolescents with the disease.

Surgical Treatment

In more rare cases, a major abdominal procedure called a laparotomy may be performed to remove endometrial lesions. During a laparotomy, a hysterectomy, the removal of the uterus, may also be performed. If the surgeon believes the endometriosis to be severe enough, they may remove the ovaries and fallopian tubes as well as the uterus. This is called a total hysterectomy and bilateral salpingo-oophorectomy. There is a fifteen percent chance that endometrial lesions will come back in women who have had this procedure [18].

There are no medications that can be taken indefinitely as they all possess a wide variety and severity of side effects and risk factors. The prescribed drug therapies are unreliable and provide no consistent relief without side effects.

V. Holistic Approach to the Treatment of Endometriosis

Like the disease itself, the holistic approach to treating endometriosis is complex and can require not only herbal medicine but also diet and lifestyle changes in order to not only relieve symptoms but also attack the root of what is potentially causing the disease. It is necessary to take into account the immune system and inflammation, hormonal regulation, exposure to and detoxification from toxins, diet and nutrition, lifestyle, and the individual person's emotional and psychological state and coping mechanisms for dealing with the disease. Herbal medicine can not only be used complementarily to the medical treatment of the disease but can also be used as a safe alternative to the drugs in order to help resolve the outstanding issues causing the disease. Without continually disrupting hormonal functions and suppressing the body's normal cycles, as the drugs set out to do, a comprehensive herbal treatment plan can address not only the symptoms of pain, but can also reduce inflammation, improve overall immune health, help the body process and rid itself of harmful environmental toxins, as well as reduce the emotional and physiological side effects that often accompany the disease including stress and depression.

While this paper does not go into detail about the comprehensive approach to endometriosis that Chinese Medicine has been researching and practicing for centuries, it cannot be overlooked. The treatment of the disease with Chinese Medicine contains many complex formulas for stagnant blood that contain herbs with primarily anti-inflammatory, anti-proliferative, and pain-reducing properties. Many of these herbs are used synergistically, meaning that two or more herbs used together are able to interact with and enhance the effects of each other. Chinese Medicine offers a number of formulas that have been used successfully in treating endometriosis. While there have been many studies done on their efficacy not many randomized control trials can be found in the english literature ².

Complementary Approach

While pain can sometimes be managed through the use of drugs and/or surgery, sometimes symptoms persist. Antispasmodic, analgesic, and anti-inflammatory herbs can be used to manage symptoms of pain and include but are not limited to: Cramp Bark (*Viburnum opulus*), Black Haw (*Viburnum prunifolium*), Black Cohosh (*Actaea racemosa*), Dong Quai (*Angelica sinensis*), and California Poppy (*Eschscholzia californica*). Stronger anodynes such as Jamaican Dogwood (*Piscidia piscipula*), Silk Tassel (*Garrya elliptica*), and Corydalis (*Corydalis ambigua*) can be used in more severe symptoms of pain but should be used only under the supervision of an herbalist and in small doses. Other herbs to take to support the body and help balance hormones while on medications and/or after surgery are: Raspberry Leaf (*Rubus idaeus*), Nettles (*Urtica dioica*), Violet (*Viola spp*), and Red Clover (*Trifolium pratense*). Complementary therapy with the use of herbal medicine as well as diet and lifestyle improvements can help manage symptoms of the disease as well as side effects from the medications.

Alternative Holistic Approach

Endometriosis requires a complex herbal treatment strategy that can involve many months of therapy and various formulas to be taken acutely, long term, and/or cyclicly. Each

² Currently, a randomized controlled trial is being done studying the use of TCM in reducing endometrial related pain as effectively as some hormonal therapies without the pseudo-menopausal side effects that follow GnRH-a therapy [19].

formula given should be dependent upon the individual case and that person's constitution, lifestyle, diet, and symptomatology. Important herbal actions include:

| | |
|----------------------|---|
| Analgesics/Anodynes: | pain relief |
| Anti-inflammatories: | pain relief |
| Anti-spasmodics: | pain relief |
| Sedatives: | pain relief |
| Emmenagogues: | help regulate cycle |
| Uterine Tonics: | tonify the uterus and reproductive system |
| Anti-proliferatives: | inhibit proliferation of harmful cells |
| Hepatics: | hormonal regulation by improvement of healthy hepatic function and hormonal metabolism by the liver |
| Hormonagogue: | regulate and balance hormones |
| Lymphatics: | relieve stagnation, improve lymphatic circulation (specifically in pelvic region) |
| Immune modulators: | improve immune function and promote healing |
| Adaptogens: | help body adapt to stressors and manage emotional symptoms |
| Nervines: | stress relief |

Herbs

Vitex (Vitex agnus-castus): hormonagogue, emmenagogue, uterine tonic. Vitex is specifically indicated for endometriosis as well as other hormone related conditions of the female reproductive system. Vitex works on the pituitary rather than directly on the ovaries and helps modulate and normalize hormones. It should not be taken with contraceptives.

Black Cohosh (Actaea racemosa): anti-spasmodic, anti-inflammatory, emmenagogue, nervine. Black cohosh is a phytoestrogen and can help normalize levels of estrogen and progesterone. It can help relieve cramping and pain associated with endometriosis and help with the stress and emotional issues the disease can induce.

Dong Quai (Angelica sinensis): anti-inflammatory, emmenagogue, anti-proliferative. Dong Quai is a female reproductive system tonic and female hormone normalizer that will lower estrogen if

it is too high, as in the case of endometriosis. It is a well known herb for helping to increase fertility.

White Peony (Paeonia lactiflora): antispasmodic, emmenagogue, nervine. White Peony helps to treat blood stagnation in the pelvis and relax the uterus. It contains constituents that help to strengthen the immune system in fighting against inflammation that could cause the endometrial implants and adhesions. Some studies have shown that when combined with Licorice Root (*Glycyrrhiza glabra*), the uterine relaxing effect and subsequent reduction in menstrual pain is increased [25].

Licorice (Glycyrrhiza glabra): anti-proliferative, anti-inflammatory. Licorice contains isoflavones that help regulate estrogen and progesterone levels. It is phyto-estrogenic and therefore able to raise or lower levels of estrogen. It should be avoided in high blood pressure.

Yarrow (Achillea millefolium): analgesic, anti-inflammatory, antispasmodic, emmenagogue, alterative. Yarrow is a powerful blood regulating herb indicated for menstrual issues including dysmenorrhea and menorrhagia that can accompany endometriosis. It can help tone the uterus and promote a more regular flow, as well as relieve blood stagnation and relax the uterus. In addition, Yarrow aids the liver in metabolizing hormones.

Lady's Mantle (Alchemilla vulgaris): emmenagogue, uterine tonic, astringent. Lady's Mantle is a specific for menorrhagia and the menstrual cramping associated with endometriosis. It is considered by some herbalists to be a supreme uterine tonic. As an emmenagogue it can be used to promote regular menstrual flow but can also act as a uterine astringent.

Wild Yam (Dioscorea villosus): antispasmodic, anti-inflammatory, analgesic, hepatic, nervine relaxant, hormone balancing. Wild Yam can ease dysmenorrhea and relieve ovarian and uterine pains. It is a specific for the pain associated with endometriosis and can help regulate the ratio of progesterone and estrogen in the body. It is highly indicated in inflammatory conditions of the uterus and ovaries.

Shatavari (Asparagus racemosus): adaptogen, emmenagogue, tonic. Shatavari is considered the "hormonal harmonizer" by herbalist Aviva Romm and the "Queen of Adaptogens" in the Ayurvedic system. It is a rejuvenating tonic that can help with physical and emotional symptoms of PMS and endometriosis. It can mildly lower estrogen and also improve immunity as well as fertility.

Milk Thistle (Silybum marianum): hepatoprotective, hepatic, anti-inflammatory. Milk Thistle contains constituents which not only protect the liver from damage but are also able to promote healthy liver function and aid in the metabolism of hormones. Healthy liver function is vital in any approach to dealing with reproductive system issues as the liver is responsible for indirect hormonal regulation by metabolizing and clearing the body of excess hormones; i.e. estrogen. It is also indicated for pelvic congestion.

Other important herbs in the treatment and management of endometriosis include:

Turmeric (Curcuma longa): anti-inflammatory, hepatic

Ginger (*Zingiber officinale*): warming, carminative, anti-inflammatory, promotes circulation
Cinnamon (*Cinnamomum zeylanicum*): emmenagogue, carminative, warming, pelvic decongestant

Ocotillo (*Fouquieria splendens*): pelvic lymphatic

Western Pasqueflower (*Anemone pulsatilla*): nervine, antispasmodic, specifically indicated for pain associated with the reproductive system including endometriosis and dysmenorrhea

Red Clover (*Trifolium pratense*): alterative, nutritive, phytoestrogen

Burdock (*Arctium lappa*): hepatoprotective, alterative, immune stimulator, enhances detoxification pathways in the liver

Silk Tassel (*Garrya spp.*): anodyne, antispasmodic, uterine stimulant, smooth muscle relaxant, specific to pelvic region

Corydalis (*Corydalis yanhusuo*): anodyne, antispasmodic, emmenagogue, combines well with Silk Tassel and Dong Quai for menstrual pain

Motherwort (*Leonurus cardiaca*): nervine, antispasmodic, sedative, uterine stimulant, emmenagogue

Skullcap (*Scutellaria lateriflora*): antispasmodic, nervine relaxant

Flower Essences

Flower essences can work on the psychological aspects of endometriosis to aid the person in healing the subtle layers of the emotional symptoms. They can be used safely and long term with no side effects. A few flower essences that can work well in dealing with issues concerning the female reproductive system, specifically endometriosis and other conditions of painful menstruation include:

Yarrow: Yarrow helps to clarify boundaries and is especially useful for those prone to environmental illness. Yarrow can help astringe boundaries surrounding a person and aid in strengthening them to allow for healing to take place.

Mugwort: Mugwort can aid in bodily flows and helps to move things. It can be especially useful for menstruation as well as childbirth. Mugwort can help connect one's menstrual cycle to the lunar cycle and can be useful for highly emotional individuals.

Rose: Rose helps promote self love, self care, self confidence, empowerment, and an open heart.

Red Camellia: Red Camellia can be used for hormonal imbalance and helps facilitate the resolution of underlying emotional issues that could be perpetuating the imbalance.

Sample Formulas

Days 1-14 of cycle:

Vitex

Dong Quai

Black Cohosh

Licorice + White Peony (combined)

Wild Yam

Days 15-28 (+/-) of cycle:

Vitex

Shatavari

Ocotillo

Cinnamon
Yarrow

Acute Pain Formula:

Start with herbs such as:

Black Cohosh
Wild Yam
Cramp Bark

If something stronger is necessary one can use herbs such as:

Silk Tassel
Corydalis
Dong Quai

These herbs should be used with caution, under the supervision of an herbalist.

Formulas depend upon the person and their individual constitution. These are sample formulas given to show how herbs can be formulated based on one's menstrual cycle. For specific formulations and dosages one should always work with an herbalist.

Diet

Diet plays a vital role in the development of estrogen-related diseases. The modification of diet has shown promising effects on endometriosis and includes supplementation of various vitamins and minerals. In one review, it was found that the intake of vitamin B complex and magnesium, along with omega 3, exerted an anti-inflammatory action in patients with endometriosis. Magnesium aids the liver in detoxification and is crucial for the removal of toxic substances and heavy metals from the body. As magnesium deficiency is both a sign and symptom of endometriosis it is important to include supplementation in the treatment plan. Both vitamin B and magnesium are related to anti-inflammatory prostaglandin production and myometrial (the middle layer of the uterine wall and part of the endometrium) relaxation. A plant-based diet including B vitamins, vitamin D, omega 3 and 6, and magnesium can reduce inflammation and excess body weight therefore reducing excess estrogen production [20]. The relationship between excess levels of estrogen in the body and obesity was observed in a randomized controlled study evaluating weight loss, exercise, and sex hormones in postmenopausal women [21].

An ideal diet for patients with endometriosis would incorporate anti-inflammatory foods including high quality fats, fiber from vegetables and whole grains, bioflavonoid rich foods such as berries, seaweeds rich in iron, and fermented soy products such as tempeh and miso. The ideal diet would be very low in saturated fats, oxidized oils like vegetable and canola, processed foods, white flour and sugar, and animal protein as these are all highly inflammatory and can worsen symptoms. Caffeine and alcohol intake should be little to none. Given the relationship between dioxin and endometriosis it is recommended to incorporate a chlorophyll supplement into the diet as it has been tested and proved to inhibit dioxin absorption in the body. Alfalfa is one of the highest plant sources of chlorophyll and can be taken daily as a tea.

Lifestyle

Lifestyle changes can help immensely in the treatment of endometriosis. As stated previously, dioxins have been found in tampons and pads. Switching to organic tampons and pads, menstrual cups, sponges, reusable pads, and/or menstrual underwear, provides safe alternatives to harmful products and also reduces the burden these products place on the environment. Exercise is an important part of managing endometriosis and should be done on a regular basis. Taking hot baths, using heating pads, and practicing good self care are all important components of managing the disease and can help with the physical and psychological effects one may experience.

Conclusion

Endometriosis is an enigmatic condition affecting a growing number of people today. This number increases alongside the rising amounts of toxins in our environment. Although the etiology of the disease is not fully understood or accepted, it can be proposed that it is a combination of many complex factors adding up to the development of the disease. The medical approach fails at addressing any potential causes of the disease and therefore is only able to relieve symptoms through hormonal or surgical procedures, some with long lasting and potentially detrimental side effects. A comprehensive holistic approach is less invasive as well as safer and has shown not only a reduction of symptoms but also a reduction of the persistence and recurrence of the disease. While the allopathic approach aims at treating the disease from a singular cause, the holistic approach aims to treat the individual and can therefore provide more hope in the treatment of endometriosis.

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