Endometriosis

Endometriosis is a common yet poorly understood disease. It can strike women of any socioeconomic class, age, or race. It is estimated that between 10 and 20 percent of women of childbearing age have endometriosis. While some women with endometriosis may have severe pelvic pain, others who have the condition have no symptoms. Nothing about endometriosis is simple, and there are no absolute cures. The disease can affect a woman's whole existence-her ability to work, her ability to reproduce, and her relationships with her mate, her child, and every one around her.

What is Endometriosis?

The name endometriosis comes from the word "endometrium," the tissue that lines the inside of the uterus. If a woman is not pregnant this tissue builds up and is shed each month. It is discharged as menstrual flow at the end of each cycle. In endometriosis, tissue that looks and acts like endometrial tissue is found outside the uterus, usually inside the abdominal cavity.

Endometrial tissue residing outside the uterus responds to the menstrual cycle in a way that is similar to the way endometrium usually responds in the uterus. At the end of every cycle, when hormones cause the uterus to shed its endometrial lining, endometrial tissue growing outside the uterus will break apart and bleed. However, unlike menstrual fluid from the uterus, which is discharged from the body during menstruation, blood from the misplaced tissue has no place to go. Tissues surrounding the area of endometriosis may become inflamed or swollen. The inflammation may produce scar tissue around the area of endometriosis. These endometrial tissue sites may develop into what are called "lesions," "implants," "nodules," or "growths."

Endometriosis is most often found in the ovaries, on the fallopian tubes, and the ligaments supporting the uterus, in the internal area between the vagina and rectum, on the outer surface of the uterus, and on the lining of the pelvic cavity. Infrequently, endometrial growths are found on the intestines or in the rectum, on the bladder, vagina, cervix, and vulva (external genitals), or in abdominal surgery scars. Very rarely, endometrial growths have been found outside the abdomen, in the thigh, arm, or lung.

Physicians may use stages to describe the severity of endometriosis. Endometrial implants that are small and not widespread are considered minimal or mild endometriosis. Moderate endometriosis means that larger implants or more extensive scar tissue is present.

Severe endometriosis is used to describe large implants and extensive scar tissue.

What Are the Symptoms?

Most commonly, the symptoms of endometriosis start years after menstrual periods begin. Over the years, the symptoms tend to gradually increase as the endometriosis areas increase in size. After menopause, the abnormal implants shrink away and the symptoms subside.

The most common symptom is pain, especially excessive menstrual cramps (dysmenorrhea) which may be felt in the abdomen or lower back or pain during or after sexual activity (dyspareunia). Infertility occurs in about 30 to 40 percent of women with endometriosis. Rarely, the irritation caused by endometrial implants may progress into infection or abscesses causing pain independent of the menstrual cycle. Endometrial patches may also be tender to touch or pressure, and intestinal pain may also result from endometrial patches on the walls of the colon or intestine.

The amount of pain is not always related to the severity of the disease-some women with severe endometriosis have no pain; while others with just a few small growths have incapacitating pain.

Endometrial cancer is very rarely associated with endometriosis, occurring in less than 1 percent of women who have the disease. When it does occur, it is usually found in more advanced patches of endometriosis in older women and the long-term outlook in these unusual cases is reasonably good.

How Is Endometriosis Related to Fertility Problems?

Severe endometriosis with extensive scarring and organ damage may affect fertility. It is considered one of the three major causes of female infertility. However, unsuspected or mild endometriosis is a common finding among infertile women and how this type of endometriosis affects fertility is still not clear. While the pregnancy rates for patients with endometriosis remain lower than those of the general population, most patients with endometriosis do not experience fertility problems.

What Is the Cause of Endometriosis?

The cause of endometriosis is still unknown. One theory is that during menstruation some of the menstrual tissue backs up through the fallopian tubes into the abdomen, where it implants and grows.

Another theory suggests that endometriosis may be a genetic process or that certain families may have predisposing factors to endometriosis. In the latter view, endometriosis is seen as the tissue development process gone awry. Whatever the cause of endometriosis, its progression is influenced by various stimulating factors such as hormones (in particular oestrogen) or growth factors.

In addition to these new hypotheses, investigators are continuing to look into previous theories that endometriosis is a disease influenced by delayed childbearing. Since the hormones made by the placenta during pregnancy prevent ovulation, the progress of endometriosis is slowed or stopped during pregnancy and the total number of lifetime cycles is reduced for a woman who had multiple pregnancies.

How Is Endometriosis Diagnosed?

Diagnosis of endometriosis begins with a gynaecologist evaluating the patient's medical history. A complete physical exam, including a pelvic examination, is also necessary. However, diagnosis of endometriosis is only complete when proven by a laparoscopy, a surgical procedure in which a laparoscope (a tube with a light in it) is inserted into a small incision in the abdomen. The laparoscope is moved around the abdomen, which has been distended with carbon dioxide gas to make the organs easier to see. The surgeon can then check the condition of the abdominal organs and see the endometrial implants.

The laparoscopy will show the locations, extent, and size of the growths and will help the patient and her doctor make better-informed decisions about treatment.

What Is the Treatment?

While the treatment for endometriosis has varied over the years, doctors now agree that if the symptoms are mild, no further treatment other than medication for pain may be needed. For those patients with mild or minimal endometriosis who wish to become pregnant, doctors are advising that, depending on the age of the patient and the amount of pain associated with the disease, the best course of action is to have a trial period of unprotected intercourse for 6 months to 1 year. If pregnancy does not occur within that time, then further treatment may be needed.

For patients not seeking a pregnancy where treatment specific for the management of endometriosis is required and a definitive

diagnosis of endometriosis by laparoscopy has been made, a physician may suggest hormone suppression treatment. Since this therapy shuts off ovulation, women being treated for endometriosis will not get pregnant during such therapy, although some may elect to become pregnant shortly after therapy is stopped.

Hormone treatment is most effective when the implants are small. The doctor may prescribe a weak synthetic male hormone called Danazol, a synthetic progestin alone, or a combination of oestrogen and progestin such as oral contraceptives. The combined pill has been shown to be as effective as the other treatments but with less chance of unpleasant side effects and lower risks

Another type of hormone treatment is a synthetic pituitary hormone blocker called gonadotropin-releasing hormone agonist, or GnRH agonist. This treatment stops ovarian hormone production by blocking pituitary gland hormones that normally stimulate ovarian cycles. One concern is the loss of bone mineral which occurs with this type of hormone therapy. This may limit the duration and frequency of this type of treatment.

While pregnancy rates for women with fertility problems resulting from endometriosis are fairly good with no therapy and with only a trial waiting period, there may be women who need more aggressive treatment. Those women who are older and who feel the need to become pregnant more quickly or those women who have severe physical changes due to the disease, may consider surgical treatment. Also, women who are not interested in pregnancy, but who have severe, debilitating pain, may also consider surgery.

Conservative surgery attempts to remove the diseased tissue without risking damage to healthy surrounding tissue. This surgery should be possible by laparoscopic approach from specially trained gynaecologist and is performed in a hospital under anaesthesia. Pregnancy rates are highest during the first year after surgery. The specifics of the surgery should be discussed with a gynaecologist.

Some patients may need more radical surgery to correct the damage caused by untreated endometriosis. Hysterectomy and removal of the ovaries may be the only treatment possible if the ovaries are badly damaged. In some cases, hysterectomy alone without the removal of the ovaries may be reasonable.