Endometriosis

Endometriosis is a common disease that affects millions of women. The disease occurs only in women who are having menstrual periods. In other words, it does not affect children prior to puberty and rarely affects postmenopausal women. Endometriosis can present itself in many different ways, but most common is pain in the pelvic region particularly during menstrual periods. Endometriosis has been associated with infertility. Many women with endometriosis may have no symptoms or problems at all.

Q. What is endometriosis?

A. The uterus (womb) is normally lined with a special layer of tissue called endometrium. Endometriosis is a condition where endometrium-like tissue is found in parts of the body other than the uterus. The most common places that endometriosis is found are on the surfaces of the ovaries, the outer surface of the uterus, the surface of the intestines (bowels), the surface of the bladder, and the lining of the abdominal cavity (peritoneum).

Q. What are the signs of endometriosis?

A. The most common presentation is pain in the pelvic area that worsens during the menstrual period. Medically speaking this is called 'dysmenorrhea.' Other symptoms include painful intercourse, urinary frequency and urgency, and possible infertility.

Q. What causes endometriosis?

A. The exact cause for endometriosis is unknown. One theory is that a portion of the menstrual flow, which contains live endometrium cells, goes backwards through the fallopian tubes and implants endometrial lining cells onto the pelvic organs. The trouble with this theory is that virtually all women experience "back wash" of menstrual fluid out of the fallopian tubes.

Q. How do the menstrual periods affect endometriosis?

A. To better understand endometriosis one needs to have some understanding of the normal menstrual cycle.

The ovarian cycle is a complicated series of events that allows the female to make and release a fertile egg from the ovary. At the same time, the factors controlling the menstrual cycle prepare the uterus to accept an egg, should a sperm fertilize it. Varying hormones released by the pituitary gland in the brain and the ovaries control the menstrual cycle.

Most menstrual cycles last about 4 weeks or 28 days, but every woman has her own cycle length. We usually consider the start of the cycle to be the first day the menstrual flow starts. Four to six days after the onset of the period, the female hormones produced by the ovaries (particularly estrogens) cause the lining of the uterus (endometrium) to grow and thicken. This growth and thickening that includes increased blood flow to the area is accomplished to prepare the uterus for a possible pregnancy. Approximately 2 weeks into the cycle the lining is significantly thicker, and ovulation occurs about this time. Ovulation is the release of an unfertilized egg from one of the ovaries. The released egg is then captured by the fallopian tube. The egg is transported down the fallopian tube and the egg is fertilized if a sperm unites with the egg at any point. The fertilized egg continues to move down the fallopian tube to the uterus and a pregnancy results if the fertilized egg attaches to the endometrium. If a pregnancy occurs, hormones produced by the fertilized egg allow the uterus to maintain its lining in order to provide nutrients for the growing embryo. If the egg is not fertilized, the egg dies and the hormone levels produced by the ovaries decrease. Due to the changing hormone levels, the lining of the uterus starts to disintegrate and is discharged out of the body at approximately 4 weeks. This is known as the menstrual period and represents the point in time that the process begins over again.

Q. What causes endometriosis symptoms?

A. During the menstrual period, normal discharged endometrial tissue is easily passed through the cervix and the vagina to the outside. Unfortunately, endometriosis leads to bleeding and the events of menstruation in places that have no outlet. The body surrounds the dying tissue with white blood cells and other types of cells. These cells digest the dying tissue. The presence of white blood cells and the breakdown of dying tissue cause inflammation that creates the pain and swelling. In time, the inflammation subsides as the dying tissue is removed by the body's internal mechanisms, but the cycle continues over and over as the hormone cycle repeats itself. The inflammation may create scar tissue or adhesions that bind the pelvic organs together. As mentioned above, the fallopian tubes, ovaries, the lining of the bowel, and the bladder can all be affected by the scar tissue, causing pain. Its effect on the ovaries or tubes or both is thought to be the mechanism that leads to the possibility of infertility. Urinary symptoms, particularly urgency or an intense need to urinate even though the bladder may be empty, occur when the bladder surface is involved.

Q. Can the endometriosis spread?

A. Yes. During menstruation, live endometrial-like cells may migrate and cause new areas of endometriosis. At other times the local areas of endometriosis can slough completely causing a remission in symptoms. Endometriosis tends to wax and wane with some cycles being worse than others. Endometriosis can occur only in women who are having menstrual periods. After menopause, endometriosis is not usually a problem because of the lack of estrogen. Endometriosis seems to be most common in women between the ages of 30 and 40, although it can occur in women much younger. Endometriosis is more common in women whose mother or sisters have had similar conditions. The reasons why some women develop endometriosis and others do not are not clear, but many experts believe that the hormone system plays a major role.

Q. Can I prevent myself from getting endometriosis?

A. There is no absolute way to prevent getting endometriosis.

Q. How common is infertility if I have endometriosis?

A. Women who have endometriosis seem to have more problems with fertility than those that do not. This means that they have a lesser chance of becoming pregnant. Many women find out that they have endometriosis only after they have been unsuccessful in achieving a pregnancy. About 30% of infertile women in whom no other abnormality is found may be proven to have endometriosis. The endometriosis in these circumstances can be treated often with good results although effects on fertility are unclear.

Q. Can I develop cancer with endometriosis?

A. The development of cancer in women with endometriosis is very rare but it can happen. Any continued pain or problem that does not seem to have normal cycling should be brought to the attention of your physician.

Q. How is a diagnosis of endometriosis confirmed?

A. Ordinarily your doctor may determine if endometriosis is present by your medical history and menstrual cycle background. Occasionally, examinations will be required during and between your menstrual periods to see if changes have occurred. At times the scar tissue and swelling caused by endometriosis tissue can be felt. An accurate way of diagnosing endometriosis, however, is to actually look at the pelvic organs using laparoscopy. Laparoscopy is a telescopic examination of the pelvic organs and is done with a general anesthetic in a short stay-surgery setting. A special telescope is inserted just below the belly button or umbilicus into the abdominal cavity. Visual inspection of the ovaries, uterus, fallopian tubes, bowels, and bladder can be accomplished this way. At the time of laparoscopy, biopsies may be taken to confirm the diagnosis of endometriosis. Adhesions or scar tissue can be treated or broken up using scissors, or cautery, or laser treatments.

Q. How can endometriosis be treated?

A. There are many treatment options for endometriosis. The treatment used may depend on the symptoms present, the organs involved, and the pregnancy desires of the patient.

Hormone Treatments

By preventing or suppressing the normal menstrual cycle, we are often able to control endometriosis. As mentioned above, the endometriosis grows in response to rising estrogen levels in the early part of the menstrual cycle. By blocking the rising and falling hormone levels, the endometriosis does not slough and pain is usually controlled. The disadvantage, of course, is that while the patient is taking these medications, pregnancy cannot occur. However, patients with infertility are often treated in such a way in an effort to make the endometriosis quiet down. The hormone treatments then are stopped and some women can become pregnant at

this point. Hormone treatment can be accomplished in two ways. The more traditional method is to use birth control pills on a continuous basis. The use of special drugs to inhibit the release of controlling hormones from the brain is the other alternative. The drugs (luprolide or Lupron, goserelin or Zolodex) are called Gonadatrophin-releasing Hormone Analogs. They suppress the release of estrogen from the ovaries, thereby stopping the cycling of endometriosis. These drugs usually are given for 6 months using a monthly injection. The drugs often must be given in the doctor's office.

Surgery and Laparoscopic Surgery

Laparoscopy with surgical removal and cutting of scar tissue commonly is performed. The surgical procedures are dependent on the location and amount of endometriosis, as well as the indications or reasons for doing the procedure. A woman who has no desire for additional children might be treated more aggressively than a woman who wishes to maintain or enhance fertility. When endometriosis is present, certain areas must be completely removed using regular surgical approaches. In some advanced cases where pregnancy is not desired, removal of all the pelvic organs or hysterectomy (uterus, tubes and ovaries) is indicated.

Each patient with endometriosis is different. Pregnancy issues often dictate the treatment regimens. Some women cannot take birth control pills for treatment because of the side effects of those medications. Because of these differences, every patient with endometriosis needs to have the disease explained in detail and the decisions about treatment including surgery or medical treatment discussed completely. Each patient needs to understand that risks and complications are associated with any required treatment and that there are no guarantees of success either with regard to pain or fertility.

Summary

Endometriosis is a very complex problem that affects each individual differently. Please do not hesitate to ask your physician if you have any questions or need more information about endometriosis.

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