

ENDOMETRIOSIS

A Cause of Autoimmune Infertility

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Endometriosis is a condition with an autoimmune origin characterized by deposits of uterine tissue in areas other than the uterus.

Endometriosis is a gynecological condition in which uterine tissue (tissue that lines the uterus) is found ectopically, that is, it's in other parts of the pelvic cavity and in other parts of the body. For instance, endometriosis may cause deposits of uterine tissue to occur on the ovaries, fallopian tubes, pelvic ligaments, or along the pelvic sidewall, bladder, bowel, intestines, colon, and appendix. Rarely, endometriosis causes the growth of uterine tissue inside the vagina, bladder, skin, lungs, spine, and brain. Current research suggests that endometriosis is an autoimmune condition.

Symptoms

The most common symptom of endometriosis is pelvic pain, which sometimes corresponds to the menstrual period although it may occur at any time. The development of adhesions and scar tissue can cause the organs of the pelvic cavity to fuse to one another, contributing to pain.

Pain may also occur during ovulation, during urination, during or following sexual intercourse, in the lower back and during menstrual flow. Endometriosis may also cause bowel changes (diarrhea or constipation), bloating, heavy menstrual bleeding, and fatigue. Up to 30-40 percent of women with endometriosis have problems with infertility.

Causes of Endometriosis

A number of theories have been put forth to explain why endometriosis develops. These include retrograde menstruation, a condition of menstrual flow returning back towards the body; transplantation theory, in which uterine tissue travels through the circulation to other parts of the body, iatrogenic metaplasia, a condition which would cause the transplant of uterine tissue during surgery, estrogen changes, and autoimmunity.

Autoimmune Theory

The autoimmune theory proposes that women with certain genetic factors develop endometriosis when they're exposed to certain environmental triggers. This theory is supported by the fact that endometriosis tends to run in families. In addition, certain environmental toxins such as PCBs, DDT, and Dioxin and other environmental endocrine disruptors are all associated with endometriosis.

In addition, many women with endometriosis are reported to be susceptible to other autoimmune diseases, including fibromyalgia, chronic fatigue syndrome, rheumatoid arthritis, autoimmune thyroid disorders, multiple sclerosis, and Meniere's disease. Allergies and asthma are also commonly seen in women with endometriosis.

Who is Affected?

Endometriosis affects women during their childbearing years. Endometriosis occurs in about 10 percent of women in this age group. Among women with infertility, the prevalence of endometriosis is higher, occurring in about 30 percent of infertile women.

Risk Factors

Risk factors for autoimmune endometriosis include: high stress levels, high fat diets, deficiencies of omega-3 essential oils, excess caffeine, excess alcohol, hormonal imbalance, low fiber diets, and estrogen excess or dominance.

Diagnosis

Endometriosis is diagnosed in women with pelvic cavity nodules or other evidence of uterine tissue within the pelvic cavity. These nodules enlarge and may become painful and tender during menses. Palpation during a pelvic examination may also uncover ovarian enlargement in the presence of endometrial cysts on the ovaries or thickened, nodular adnexa (as in pelvic inflammatory disease). A procedure known as a laparoscopy is used to confirm the diagnosis and determine the disease's stage before treatment is initiated. Endometriosis is classified in stages: Stage I, mild; Stage II, moderate; Stage III, severe; and Stage IV, extensive.

Autoantibodies demonstrated in autoimmune endometriosis include antibodies to endometrial transferrin and alpha 2-HS glycoprotein. These antibodies are known to inhibit sperm mobility and contribute to infertility.

Resource:

Cause of Endometriosis, Endo Resolved, accessed Oct 4, 2007.

In the News, Press Release of the National Institutes of Health, Killer Cramps, Sept 26, 2002, accessed Oct 5, 2007.