Part 9: Menopause in endometriosis

Menopause is the point in time when women stop having menstrual periods. It is a natural process in women of around 50 years old. Some women have hardly any problems during menopause, while others suffer from typical menopausal symptoms like hot flushes, night sweats, vaginal and urinary problems, mood changes, osteoporosis (decreased bone density). These symptoms are caused by low levels of estrogen. For women with menopausal symptoms, medical treatments exist to reduce the symptoms and discomfort from menopause.

Women with endometriosis may have similar symptoms of menopause as women without endometriosis. The problem in women with endometriosis is that the medical treatments given to women to reduce the symptoms and discomfort of menopause could have a negative effect on their endometriosis. Until now, there is no strong evidence of pain or disease recurrence in women with endometriosis taking medication for menopausal symptoms, but it is a possibility.

The guideline group feels that medical treatment for menopausal symptoms (combined estrogen/progestagen or tibolone) should be discussed with women with endometriosis with severe menopausal symptoms. Doctors should explain the positive and negative effects of this medication.

Recommendations in the guideline:

In women with surgically induced menopause because of endometriosis, estrogen/progestagen therapy or tibolone can be effective for the treatment of menopausal symptoms *(based on level B evidence).*

The GDG recommends that in postmenopausal women after hysterectomy and with a history of endometriosis, clinicians should avoid unopposed estrogen treatment. However, the theoretical benefit of avoiding disease reactivation and malignant transformation of residual disease should be balanced against the increased systemic risks associated with combined estrogen/progestagen or tibolone *(Good practice point).*

The GDG recommends that clinicians continue to treat women with a history of endometriosis after surgical menopause with combined estrogen/progestagen or tibolone, at least up to the age of natural menopause *(Good practice point).*

Part 10: Endometriosis and Cancer

Many women with endometriosis are worried about their risk of developing cancer. Several researchers have investigated whether women with endometriosis have a increased risk of developing cancer as compared to women without endometriosis.

From all these studies, the guideline development group concluded the following message:

- there is no evidence that endometriosis causes cancer
- the number of women with cancer (all types of cancer) is similar in a group of women with endometriosis as compared to a group of women without endometriosis
- some cancers (ovarian cancer and non-Hodgkin's lymphoma) are slightly more common in women with endometriosis.

In clinical studies, researchers use terms like incidence ratio, relative risk, odds ratio and others to explain the risk of developing cancer in women with endometriosis. If these figures worry you, you should ask your doctor to explain the studies in absolute numbers. One example for this is a study reporting that the incidence ratio of ovarian cancer in women with endometriosis compared to women without endometriosis is about 1.5. Translated in plain language; the researchers looked at a group of 100 women with endometriosis and 100 women without endometriosis. After 12 years, three women in the group of 100 women with endometriosis developed ovarian cancer, compared to two women of the women without endometriosis.

Another important message from the guideline development group is that there is no information on how to lower the risk of cancer in women with endometriosis or women without endometriosis.

Recommendations in the guideline:

The GDG recommends that clinicians inform women with endometriosis requesting information on their risk of developing cancer that 1) there is no evidence that endometriosis causes cancer, 2) there is no increase in overall incidence of cancer in women with endometriosis, and 3) some cancers (ovarian cancer and non-Hodgkin's lymphoma) are slightly more common in women with endometriosis *(Good practice point).*

The GDG recommends that clinicians explain the incidence of some cancers in women with endometriosis in absolute numbers *(Good practice point).*

The GDG recommends no change in the current overall management of endometriosis in relation to malignancies, since there are no clinical data on how to lower the slightly increased risk of ovarian cancer or non-Hodgkin's lymphoma in women with endometriosis *(Good practice point).*

Part 11: Dictionary

Ablation: removal of diseased or unwanted tissue by surgery or other means

Add-back therapy: Hormonal therapy to minimize side effects of medications that suppress **estrogen** (such as leuprolide acetate); add-back therapy usually decreases hot flashes and also helps prevent bone loss.

Adhesions: bands of fibrous scar tissue

Assisted reproductive technology (ART): The name for treatments that enable people to conceive by means other than sexual intercourse. Assisted reproduction techniques include **intra-uterine insemination (IUI)**, **in vitro fertilisation (IVF)**, **intracytoplasmic sperm injection (ICSI)**, donor insemination and egg donation.

Controlled ovarian stimulation (COS): For ART: pharmacologic treatment in which women are stimulated to induce the development of multiple ovarian follicles to obtain multiple oocytes at follicular aspiration.

Definite diagnosis: A diagnosis that has been absolutely confirmed

Dyschezia: Painful or difficult defecation.

Dysmenorrhea: Severe pain in the lower abdomen or back, sometimes together with nausea, depression and headache, directly before and/or during **menstruation**.

Dyspareunia: Recurrent or persistent genital pain directly before, during or shortly after coitus (sexual intercourse).

Embryo: A fertilised egg.

Endometrioma: An endometrial cyst containing old blood and **endometrium**.

Endometrium: The layer of tissue that lines the uterus. During the menstrual cycle, the endometrium grows to a thick, blood vessel-rich, glandular tissue layer. The main job of the endometrium is to accept the implantation of the fertilized egg that drops into the uterine cavity several days after ovulation and to nurture the dividing cells in the early stages of pregnancy.

Estrogen/Oestrogen: A female sex **hormone** produced by developing eggs in the ovaries, which stimulates the development of female sex characteristics.

Excision: To remove tissue surgically. (Synonym of resection)

Fertility problem: Where no pregnancy results for a couple after 2 years of regular (at least every 2 to 3 days) unprotected sexual intercourse.

Heavy menstrual bleeding: Abnormally heavy and prolonged **menstruation** at regular intervals.

Hormone: A molecule that is produced by one tissue and carried in the bloodstream to another tissue to cause a biological effect.

In vitro fertilization (IVF): A technique by which eggs are collected from a woman and fertilised with a man's sperm outside the body. Usually one or two resulting embryos are then transferred to the womb. If one of them attaches successfully, it results in a pregnancy.

Infertility: the state of being not fertile and unable to become pregnant. Clinical definition of infertility: A disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.

Intra-uterine insemination (IUI): A technique to place sperm into a woman's womb through the cervix

Intracytoplasmic sperm injection (ICSI): A variation of **IVF** in which a single sperm is injected into an egg.

Laparoscopy: A "keyhole" operation in which the surgeon uses uses a low diameter telescopic system, called a laparoscope, to examine or operate on an area in a woman's pelvis. Done under general anaesthetic.

Laparotomy or open surgery: opening the abdominal cavity with an incision made with a scalpel

Lesions: Areas of abnormal tissue or disease

Medically assisted reproduction (MAR): Reproduction brought about through ovulation induction, **controlled ovarian stimulation**, ovulation triggering, ART procedures, and intrauterine, intracervical, and intravaginal insemination with semen of husband/partner or donor.

Menstruation: The monthly discharge from the uterus; it consists of blood and **endometrium** sloughed from the uterine lining.

Menorrhagia: Abnormally heavy and prolonged **menstruation** at regular intervals. (Synonym of **Heavy menstrual bleeding**)

Natural cycle IVF: An **IVF** procedure in which one or more oocytes are collected from the ovaries during a spontaneous menstrual cycle without any drug use.

Ovary: an organ in the pelvis of women containing the eggs.

Progesterone: A **hormone** produced by the **Ovary**, but only if ovulation has occurred (after the egg is released). Its action is to prepare the **endometrium** for implantation of the embryo.

Randomized controlled trail (RCT): The "gold standard" of medical proof of the relative efficacy of one treatment over another, or over using nothing at all (placebo). Patients with a disease and who are similar to one another in most other respects (such as age, height, weight, duration of illness, and severity of disease) are assigned to one treatment group or another by randomization. The patients undergo treatment and are followed for a certain length of time to see if there is any difference in the results of the treatments studied.

Ultrasound: High frequency sound waves used to provide images of the body, tissues and internal organs.

Part 12: Questions from women with endometriosis

The Endometriose Stichting, the Dutch organisation for endometriosis patients has a platform for patients to ask any questions they may have about endometriosis. In order to document the questions, concerns and needs for information of women with endometriosis, we collected and summarized the questions asked by women between May 2012 and May 2013. Most of these questions have been answered in this patient version.

Questions on endometriosis:

- *What is the difference between endometriosis and adenomyosis, uterine fibroids and polyps?*
- *What are the different types of endometriosis, based on severity?*

Questions on symptoms of endometriosis:

- *Are the following symptoms associated with endometriosis?*
  Heavy menstrual bleeding, fungal infections, weight gain, nausea, migraine, radiating pain, cardiac arrhythmia, vaginism, fatigue, insomnia, back pain, pelvic pain, symptoms outside the menstrual period, continuous pain, bladder pain, Irritable bowel syndrome (IBS), rectal bleeding, blood in urine

Questions on the diagnosis of endometriosis:

- *Can the diagnosis of endometriosis be established by ultrasound or MRI?*
- *What are the implications of a negative diagnostic laparoscopy with symptoms of endometriosis?*
- *Can GnRH agonists (e.g., Lupron/Lucrin and Zoladex) be used to diagnose endometriosis?*

Questions on hormonal treatment for endometriosis:

- *Which hormonal treatment can be prescribed in endometriosis?*
- *Which hormones can be prescribed empirically?*
- *How do these hormones work?*
- *What are the side effects?*

Questions on alternative treatment for endometriosis:

- *What are the options for alternative medicine?*
- *Does acupuncture help in relieving symptoms of endometriosis?*
- *Does homeopathy help in relieving symptoms of endometriosis?*
- *What about physiotherapy?*