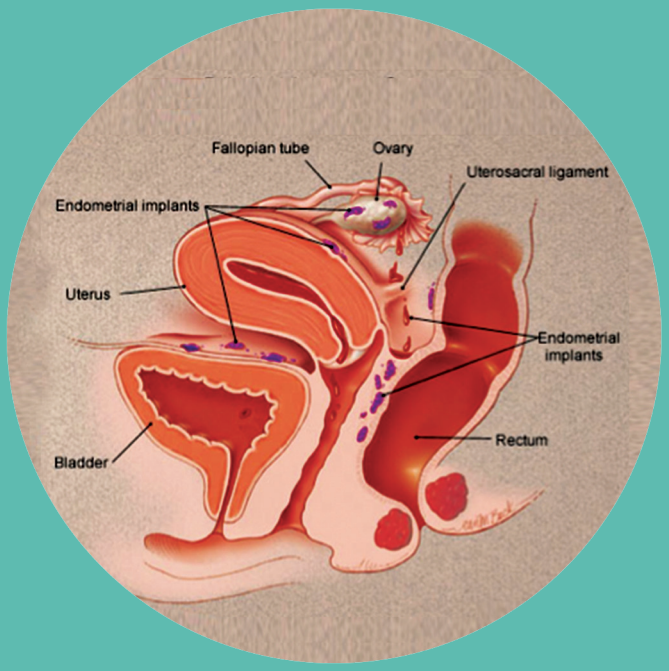
PATIENT INFORMATION

Transvaginal Ultrasound for Deep Infiltrating Endometriosis

WHAT IS ENDOMETRIOSIS ?

Endometriosis is defined as the presence of normal tissue of the lining of the uterus (endometrium) in an abnormal place, usually the female pelvis. The most common sites in the pelvis are on and below the ovaries, and deep in the pelvis behind the uterus, called the Pouch of Douglas. Here the endometriosis grows on the ligaments behind the uterus and on the vagina and rectum. It also may grow on the bladder, appendix, and even sometimes in the upper abdomen or in the abdominal wall in scars of a laparoscopy or caesarean section.



WHY DOES IT OCCUR ?

The main mechanism believed responsible for endometriosis is retrograde flow of menstrual blood through the fallopian tubes in to the pelvis during periods. The menstrual cells, once they arrive in the pelvis, implant on or infiltrate into pelvic organs. It is uncertain why this happens to some women and not to others as 70% of women have retrograde menstruation and only 15% develop endometriosis. Amongst others, genetic factors seem to play a role. It appears that there is a genetic predisposition to endometriosis. If a first degree female relative has endometriosis (mother or sister), the chance of developing endometriosis is 30%.

DIFFERENT FORMS

There are many presentations of endometriosis which may be identified by the surgeon at laparoscopy. A distinction is made between superficial lesions and deep infiltrating endometriosis, which is considered a separate entity. Superficial lesions of endometriosis can never be diagnosed on ultrasound as they have no real mass, only colour, which can not be detected with ultrasound. These lesions can only be seen on laparoscopy. They are generally easy to remove during the laparoscopy.

About 20% of women, however, will have lesions of endometriosis that infiltrate into ligaments, vagina, bowel and bladder. This form of the disease is called deep infiltrating endometriosis (DIE). Deep infiltrating endometriosis causes usually more destruction of the normal anatomy and is generally significantly more difficult to treat.

ULTRASOUND

The ability to diagnose deep infiltrating endometriosis with transvaginal ultrasound has improved dramatically around the world in the last 5 years.
Ultrasound can detect deep infiltrating endometriosis with a high degree of accuracy in the hands of a trained sonographer. The preoperative diagnosis may give a first explanation for symptoms but more importantly, it gives an indication of the extent of the disease, it provides patients with the time to think about the extent of the surgery they are prepared to submit to; and gives the surgeons an idea of what they will find during the surgery so they can prepare better for the operation and advise patients better regarding other treatment options available. Ultrasound will not detect superficial lesions so in case of a normal ultrasound a laparoscopy is still indicated when there are significant symptoms.

HOW THE ULTRASOUND IS PERFOMED ?

A normal transvaginal ultrasound will be performed. This requires a long slender camera to be inserted into the vagina. This can cause some discomfort but usually is not painful. Some patients are told that the scan is done transrectally but this is not the case. The ultrasound usually takes 30 minutes. The results will be sent to your referring doctor usually within 24 hours. Because endometriosis can infiltrate the bowel, the doctor or sonographer who does the ultrasound will carefully look at the bowel during the transvaginal ultrasound.
When the rectum is empty, the views of the bowel are generally better as bowel content can cause shadows on ultrasound. For this reason some doctors prefer you to do a mild bowel preparation prior to the ultrasound when you have had a past history of severe endometriosis or when you have significant bowel pain during your periods. This consists of a mild laxative the night before the ultrasound and an enema within an hour before the ultrasound.
If you don't have a proven history of significant endometriosis, or no significant bowel symptoms, it is probably not necessary to take bowel preparation.

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