Transvaginal Ultrasound, Endovaginal Ultrasound

Transvaginal ultrasound is a pelvic ultrasound, using a metal probe that is placed in the vagina, to look at a women's female organs. Transvaginal ultrasound is a method of seeing inside the pelvis of a woman. The ultrasound machine sends out sound waves from the transducer (*probe*). These sound waves bounce off body structures (like an echo) to create a picture. The picture shows up on a monitor. It is called transvaginal because the probe is inserted into the vagina. There should be very little discomfort from the vaginal probe. This test can also be used during pregnancy. Endovaginal ultrasound is another name for a transvaginal ultrasound.

In a transabdominal ultrasound, the probe is placed on the outside of the belly. This method gives pictures that are lower quality than pictures from the transvaginal technique.

Transvaginal ultrasound is used to look for problems of the female genital tract. Some such problems include:

- Infertility problems.
- Congenital (*birth defect*) malformations of the uterus and ovaries.
- Tumors in the uterus.
- Abnormal bleeding.
- Ovarian tumors and cysts.
- Abscess (*inflamed tissue around pus*) in the pelvis.
- Unexplained abdominal or pelvic pain.
- Pelvic infection.

USED DURING PREGNANCY TO LOOK AT:

- Normal pregnancy.
- Ectopic pregnancy (*pregnancy outside the uterus*).
- Fetal heartbeat.
- Abnormalities in the pelvis, that are not seen well with transabdominal ultrasound.
- Suspected twins or multiples.
- Impending miscarriage.
- Problems with the cervix (*incompetent cervix, not able to stay closed and hold the baby*).
- When doing an amniocentesis (*removing fluid from the pregnancy sac, for testing*).
- Looking for abnormalities of the baby.
- Checking the growth, development, and age of the fetus.
- Measuring the amount of fluid in the amniotic sac.
- When doing an external version of the baby (*moving baby into correct position*).
- Evaluating the baby for problems in high risk pregnancies (*biophysical profile*).
- Suspected fetal demise (*death*).

Sometimes a special ultrasound method called Saline Infusion Sonography (SIS) is used for a more accurate look at the uterus. Sterile saline (*salt water*) is injected into the uterus of non-pregnant patients to see the inside of the uterus better. SIS is not used on pregnant women. The vaginal probe can also assist in obtaining biopsies of abnormal areas, in draining fluid from cysts on the ovary, and in finding IUDs (*intrauterine device, birth control*) that cannot be located.

PREPARATION FOR THE TEST

A transvaginal ultrasound is done with the bladder empty. The transabdominal ultrasound is done with your bladder full. You may be asked to drink several glasses of water before that exam. Sometimes, a transabdominal ultrasound is done just after a transvaginal ultrasound, to look at organs in your abdomen.

PROCEDURE

You will lie down on a table, with your knees bent and your feet in foot holders. The probe is covered with a condom. A sterile lubricant is put into the vagina and on the probe. The lubricant helps transmit the sound waves and avoid irritating the vagina. Your caregiver will move the probe inside the vaginal cavity to scan the

pelvic structures. A normal test will show a normal pelvis and normal contents. An abnormal test will show abnormalities of the pelvis, placenta, or baby.

ABNORMAL RESULTS MAY BE DUE TO:

- Growths or tumors in the:
  - Uterus.
  - Vagina.
  - Ovaries.
  - Other pelvic structures.
- Non-cancerous growths of the uterus and ovaries.
- Twisting of the ovary, cutting off blood supply to the ovary (*ovarian torsion*).
- Areas of infection, including:
  - Pelvic inflammatory disease.
  - Abscess in the pelvis.
- Locating an IUD.

PROBLEMS FOUND IN PREGNANT WOMEN INCLUDE:

- Ectopic pregnancy (*pregnancy outside the uterus*).
- Multiple pregnancies.
- Early dilation (*opening*) of the cervix. This may indicate an incompetent cervix and early delivery.
- Impending miscarriage.
- Fetal death.
- Problems with the placenta, including:
  - Placenta has grown over the opening of the womb (*placenta previa*).
  - Placenta has separated early in the womb (*placental abruption*).
  - Placenta grows into the muscle of the uterus (*placenta accreta*).
- Tumors of pregnancy, including gestational trophoblastic disease. This is an abnormal pregnancy, with no fetus. The uterus is filled with many grape-like cysts that could sometimes be cancerous.
- Incorrect position of the fetus (*breech, vertex*).
- Intrauterine fetal growth retardation (IUGR) (*poor growth in the womb*).
- Fetal abnormalities or infection.

RISKS OF THE PROCEDURE

There are no known risks to the ultrasound procedure. There is no X-ray used when doing an ultrasound.

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