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Chorionic villus sampling

During chorionic villus sampling, a tiny piece of tissue from the chorion, or developing placenta, is taken.

Most often, chorionic villus sampling is performed to examine the chromosomes of the foetus in order to detect possible chromosomal diseases in the child even before birth.

You will be sent for chorionic villus sampling if the previous tests performed on you (nuchal translucency scan, double marker test, triple screen) indicate a possible increase in the risk of chromosomal disease or if there are indications of chromosomal diseases in your medical history.

Chorionic villus sampling is voluntary and you have the right to decide for yourself whether you want the procedure or not. You must sign a consent form before the procedure.

How is chorionic villus sampling performed?

In the case of chorionic villus sampling, the cells of the chorionic villi, or the placenta, are examined. The chromosomes of the cells in the chorion are the same as those of the foetus. The foetus is in the uterus, in the amniotic sac, which is full of amniotic fluid and surrounded by the chorion. To examine these cells, a small piece of tissue is taken from the chorion under ultrasound control with a fine needle through the abdominal wall. The cells obtained from the piece of tissue are allowed to grow for some time in a special nutrient solution, after which the proliferating cells can be examined under a microscope. The final answer to the analysis will be available in one or two weeks.

When is the best time to perform chorionic villus sampling?

Chorionic villus sampling is usually performed from the 12^{th} week of pregnancy, but it can also be done later. The 12^{th} weeks are considered to be the safest weeks of the pregnancy.

Is the procedure painful?

The procedure may seem uncomfortable, but most women do not find the procedure any more painful than having blood taken from a vein. Before the procedure, the abdominal wall is anesthetised with the same medicine used in dentistry. If you have an allergy to this medicine, you must state this before the procedure. After the procedure, you may experience a little spotting or you may feel some tension in your stomach, this is normal. If you experience increased bleeding, consult a doctor.

What are the risks of chorionic villus sampling?

Chorionic villus sampling is a fairly common procedure and complications are rare. For most women, the information obtained as a result of the study significantly outweighs the risk associated with the procedure.

- With chorionic villus sampling, the risk of spontaneous abortion increases by 1–2%. The exact cause of miscarriage is unknown. The vast majority of pregnancies continue without incident.
- Aseptic (sterile) methodology is used during the examination to avoid infection; however, inflammations may occur on rare occasions, manifesting as fever, uterine contractions and abdominal pain.
- In rhesus-negative (RhD⁻) women there is a risk during chorionic villus sampling of foetal blood cells entering the pregnant woman's bloodstream and antibodies developing against them. To mitigate the risk, if necessary, the pregnant woman is given an injection of antibodies, which reduces the possibility of becoming sensitized.

Chorionic villus sampling response

The results of chorionic villus sampling will be revealed one to two weeks after the procedure. You will first be notified by phone, and a few days later a paper copy of the results will reach your midwife or gynaecologist. The examination will give you information about the disease being studied. If the results of the examination show that the foetus has a genetic disease, the result of the examination and the future prognosis will be explained to you. According to Estonian law, termination of pregnancy for medical indications is permitted until the end of the 21st week of pregnancy. If you decide to terminate the pregnancy, you should contact your doctor or midwife for more detailed information.

What to look out for?

If you experience severe abdominal pain, bleeding, heavy discharge or fever after the examination, you should immediately contact the obstetrician on duty at the Women's Clinic.