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Prenatal Array-CGH Test: Information for Parents

What is prenatal array-CGH / microarray?

Prenatal array-CGH (also known as chromosome microarray) is a test used to pick up chromosome changes which are too small to be seen by the standard tests available in pregnancy.

What are chromosomes?

Chromosomes are structures which carry genes, and genes are instructions to tell the body how to develop and function. Each cell in the body has 46 chromosomes in 23 pairs. We inherit one member of each chromosome pair from each parent. Girls have two X chromosomes (XX) and boys have an X and a Y chromosome (XY). The other chromosome pairs are numbered from 1 to 22. Having too much or too little chromosomal material usually causes significant problems in development.

Why has the microarray test been offered to you?

Ultrasound scans have shown that your baby has an increased risk of too much or too little chromosomal material. Microarray is a laboratory test that is used to see if the baby has a chromosome change which may explain the ultrasound findings.

What are the advantages of microarray?

The main advantage is that it can detect very small chromosome changes which cannot be seen by the standard chromosome test. These changes are called micro deletions (tiny pieces of missing chromosome) and micro duplications (tiny pieces of extra chromosome). A change in the chromosomes may explain the ultrasound findings and allow more precise information to be given about what this means for your baby.

What are the disadvantages and limitations of microarray?

It does not detect all chromosome changes as some are too small to be identified at the present time. Some conditions are caused by changes in individual genes and it cannot detect tiny changes in individual genes.

Sometimes results can be difficult to interpret unless a blood sample from both parents is available for comparison.

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You are entitled to a copy of any letter we write about you. Please ask if you want one when you come to the hospital.

If you are unhappy with the advice you have been given by your GP, consultant, or another healthcare professional, you may ask for a second (or further) opinion.

The evidence used in the preparation of this leaflet is available on request. Please email: patient.information@salisbury.nhs.uk if you would like a reference list.

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Date written: July 2016
Review date: July 2020
Version: 1.0
Code: PI1415

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Microarray may detect changes called ‘variants of unknown significance’, meaning there is not yet enough information available to know if these are significant or not. Where there is uncertainty, these variants will not be reported.

Why do some people choose not to have microarray?

Microarray may occasionally identify a chromosome change which is not related to the ultrasound findings but which may have implications for the future health of your baby and possibly other family members. For example, it may show your baby will have an increased risk of cancer later on in life. Some people do not want to know this sort of information.

What happens next if I have the test?

The first part of the test looks for trisomy 13, 18 and 21. If none of these are seen, the second part of the test, the microarray, will be done. The result will be available in about 2 weeks. The specialist midwife will then contact you.

If any chromosome changes are identified, you will be offered an appointment with a clinical geneticist and genetic counsellor to discuss the result. At the time of the prenatal sample being taken, both parents will be asked to provide a blood sample in case these are needed for interpretation of the prenatal microarray result.

Further questions

If you have more questions about the microarray test, please ask the doctors or midwives in the Fetal Medicine Unit.

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